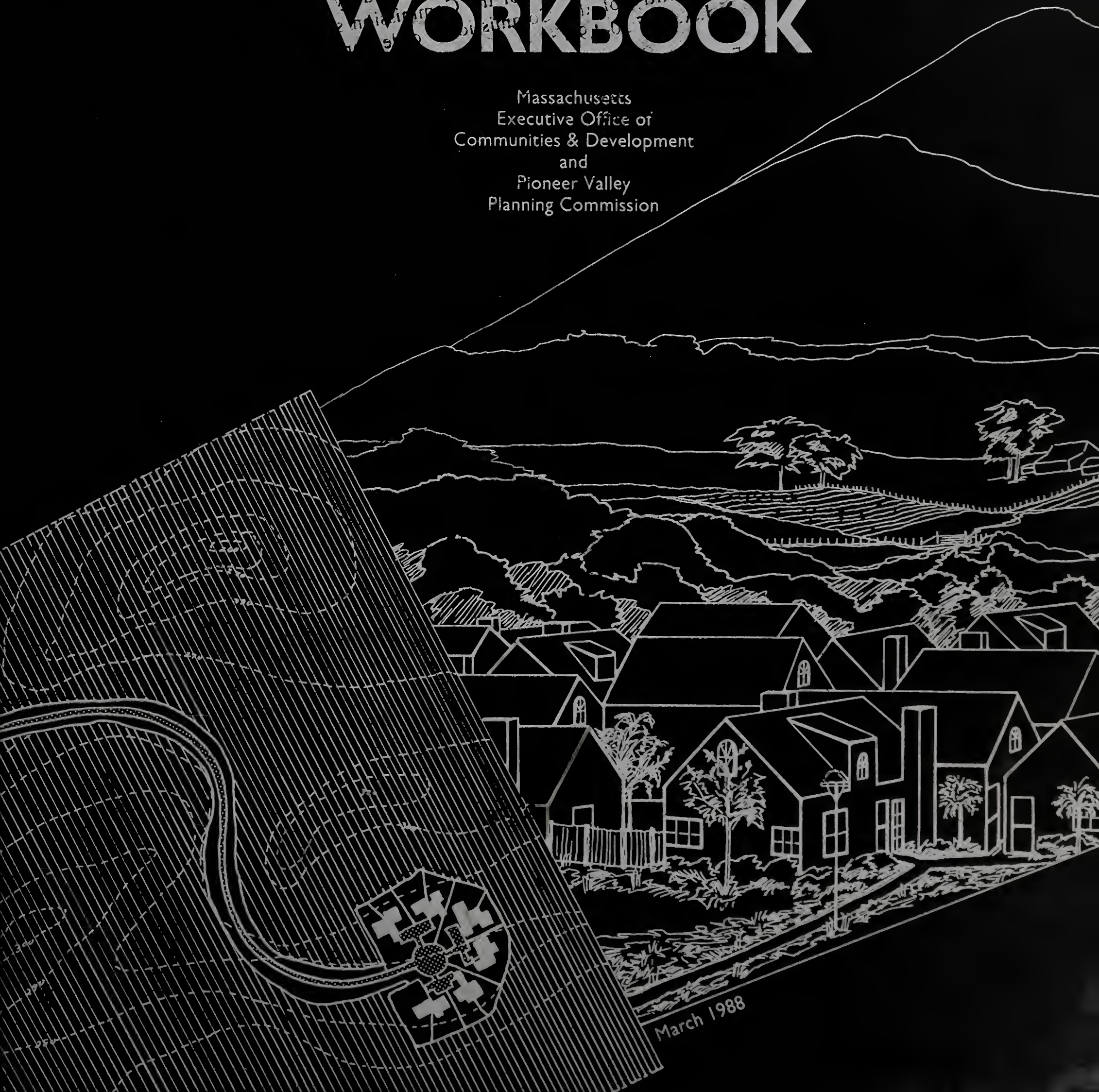




THE GROWTH MANAGEMENT WORKBOOK

Massachusetts
Executive Office of
Communities & Development
and
Pioneer Valley
Planning Commission



March 1988

EXECUTIVE OFFICE OF COMMUNITIES & DEVELOPMENT



Michael S. Dukakis, Governor
Amy S. Anthony, Secretary

June 30, 1988

Dear Chief Elected Officials and Planning Boards:

For the past few years the Executive Office of Communities and Development has been sponsoring a variety of planning grant programs to help communities with growth problems, provide affordable housing and preserve natural resources.

Two programs which have proven very successful are Strategic Planning and Regional Planning Grants. Enclosed is the first installment of a Local Growth Management Handbook. This handbook is actually a compendium of grant products developed under these programs which address growth issues that are relevant statewide.

In order to allow time for reading and assimilating the information, the handbook will be mailed to you in three installments. The first chapter, "What's Right for You", was produced by Land Use, Inc. for the City of Leominster with a Strategic Planning Grant. It discusses how a community can marshal a quick response to a particular growth problem, and then more importantly, how to use this as an opportunity to develop a long range comprehensive plan. It serves as manual-particularly for smaller planning boards lacking professional assistance on how to develop your local plan, on what other communities have done concerning specific problems, and on what groups are available to provide help along the way.

The second chapter was developed by the Pioneer Valley Planning Commission as part of a comprehensive plan for the town of Granby and was paid for with a Regional Planning Grant. It lists all growth management tools currently available to cities and towns under Massachusetts laws. It provides the legal citation for that tool, what board administers the provisions and when best to use this land use tool versus another alternative.

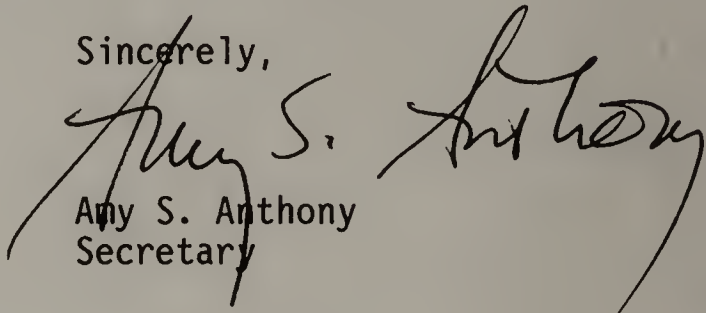
The final installment will be six issue papers on growth management policies. These were also prepared by the Pioneer Valley Planning Commission under another RPA grant. One I am sure you will all find interesting is on the true impacts of large lot zoning.

We have also provided space in the handbook for you to catalogue the Land Use Manager bulletins which planning boards, zoning board of appeals and local building officials receive regularly from EOCD. These are produced by Donald Schmidt and analyze issues raised about Chapter 40A, The State Zoning Law, and Chapter 41, The State Subdivision Control Law.

I would also like to take this opportunity to thank the Pioneer Valley Planning Commission for taking these individual projects and consolidating them into one extremely useful document for all communities. Now that EOCD's grants programs are established, we intend to focus on these products which can serve as models and circulate them to all appropriate boards.

I hope you find our first such joint project with PVPC, Land Use, Inc., Granby and Leominster to be helpful, and look forward to providing you additional project reports to serve as models for your work.

Sincerely,


Amy S. Anthony
Secretary

THE GROWTH MANAGEMENT WORKBOOK

Mass. Executive Office of Communities and Development
and
Pioneer Valley Planning Commission

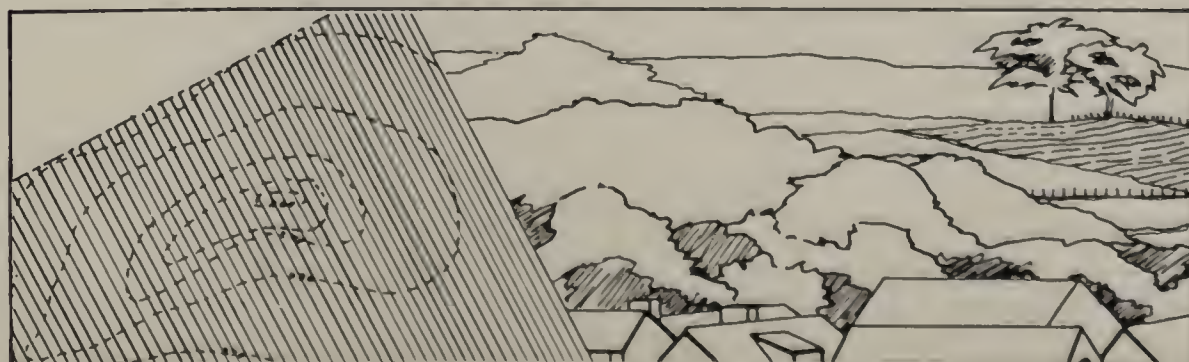
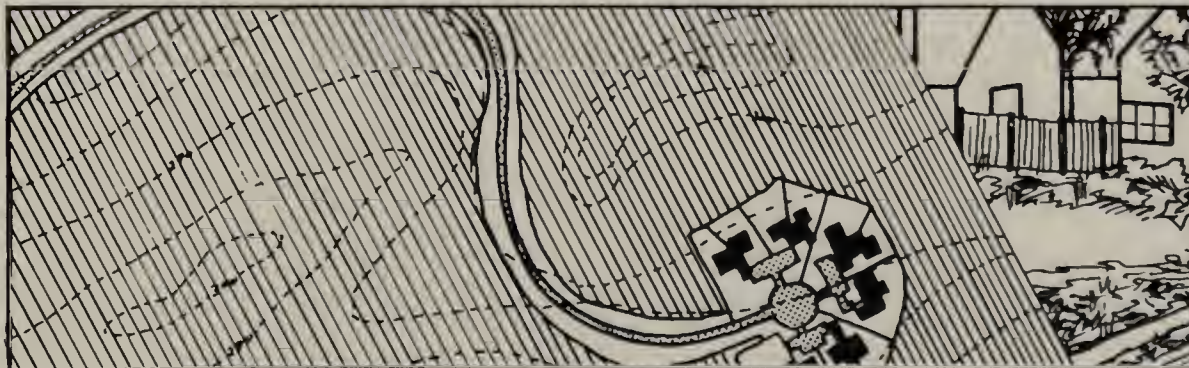
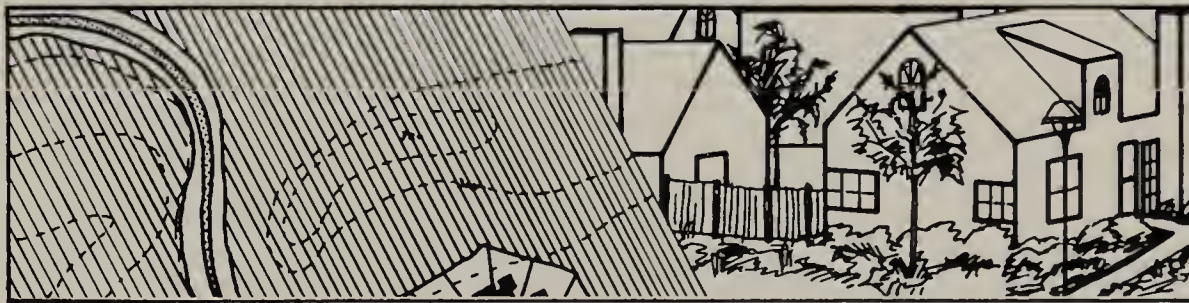
March, 1988

The preparation of this workbook was financed by a regional planning grant from the Executive Office of Communities and Development.

Additional funding was provided by a grant from the Center for Rural Massachusetts.

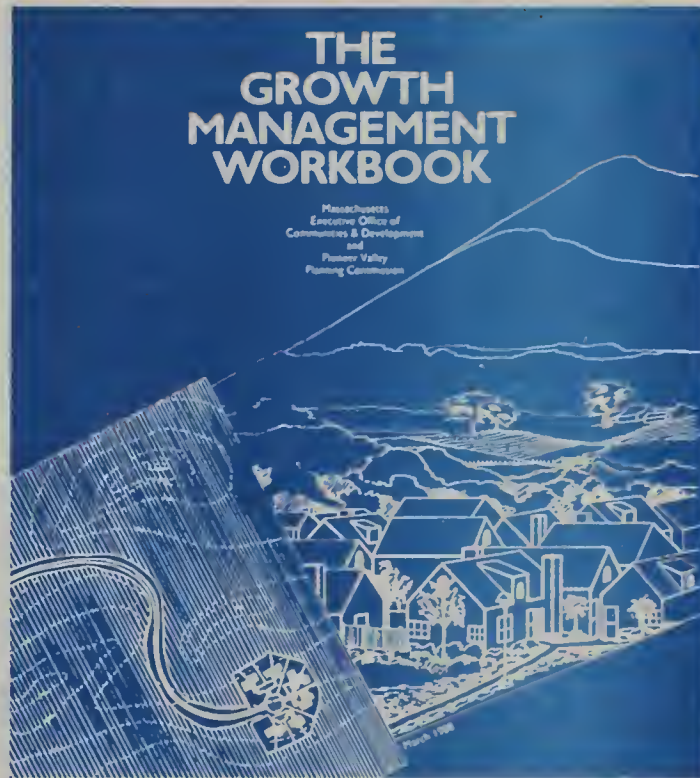
WHAT'S RIGHT FOR YOU?

Strategic Planning for Your Community



Is Your Community Feeling Growth and Development Pressures?

Additional Copies
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Price before October 1, 1988
\$20
Price after October 1, 1988:
\$25

prepared by the Pioneer Valley Planning Commission
and Mass. Executive Office of Communities & Development

THE GROWTH MANAGEMENT WORKBOOK provides an up-to-date compendium of innovative strategies to aid communities in:

- better managing growth and development
- protecting community character and open space
- promoting the creation of affordable housing
- protecting natural resources and environmental quality
- providing for quality commercial and industrial development

To order additional copies of THE GROWTH MANAGEMENT WORKBOOK
send this form to the Pioneer Valley Planning Commission
26 Central Street, West Springfield MA 01089

One copy of The Growth Management Workbook has been mailed by EOCD free of charge to each community's Planning Board and Board of Selectmen/City Council.

Please send me _____ copies of The Growth Management Workbook. I enclose \$20.00 for each copy to cover the cost of the workbook and subsequent mailings.

name

address

town

state

zip

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FORWARD

TO GROWTH MANAGEMENT WORKBOOK

For the better part of the 1980's, growth and development issues have been at the center of attention in cities and towns throughout the Pioneer Valley, the state of Massachusetts and the Greater New England area. This trend stems from a wave of growth and development activity the likes of which most communities haven't experienced since the 1960's and 1970's - if ever. Although this growth and development has been widely credited as a major force in bringing about the so-called Massachusetts economic miracle, and in the case of Pioneer Valley Region triggering a spectacular economic rebound and unprecedented job gains, it's also contributed to an ever-expanding list of complicated problems that most communities and regions have not previously encountered. A serious and growing shortage of affordable housing; a very low density and consumptive land development pattern; an alarming loss of open space and prime farmland; toxic pollutants that threaten both the natural environment and public health; and, severe fiscal austerity often most acutely felt at the local level are but a few of formidable challenges that today confront Massachusetts communities from Provincetown to Pittsfield.

Unfortunately, many cities and towns in the Pioneer Valley and elsewhere have found themselves ill-prepared for the impact and rapid changes these new development patterns have brought about even though these trends are forecast to continue into the 21st Century. Indeed, in the face of intense development pressures, many beleaguered communities have actually responded to these pressures inappropriately or not at all. In either case, the consequences are seldom happy, desirable, or pretty. This workbook constitutes a concerted effort on the part of the Pioneer Valley Planning Commission to address this problem by providing those who plan with the kinds of tools and techniques needed to successfully accomplish their job. The planning tools and techniques outlined in this report are designed to help local, regional and state decision-makers, to plan for, rather than react to, the growth and development pressures that are and will continue to shape the Pioneer Valley Region and ideally the metropolitan areas throughout Massachusetts over the next decade. For this reason, the contents of this workbook focus squarely on solutions and the application of planning tools and techniques that we believe are innovative, flexible, cost effective, legal and perhaps, most importantly, do-able.

Three key principles have guided the preparation of this report. First, the growth and development pressures that U.S. cities, towns and regions today face are dramatically different than suburban sprawl that followed in the wake of World War II. Second, the growth and development problems that today confront cities, towns and regions are much more complex and intractable than those experienced in the 1950's, 60's and early 70's. Third, contrary to popular belief, many of the planning tools and techniques presently in use in Massachusetts along with many other states, are antiquated and, therefore, largely ineffective in helping communities and regions to intelligently plan for their future. Taking these three themes into full account, this workbook presents an array of pragmatic tools and techniques that are capable of responding to contemporary growth manage-

ment and development issues and, in the process, solving the pressing problems that are rooted in present day demographics, economic and land development trends. Moreover, the workbook strives to empower communities and regions to take charge of their future by managing the forces of growth and change through a better understanding of their positive and negative ramifications.

Regardless of how relevant and timely the tools and techniques presented in this workbook actually are, they will be of little value if they go unused. In this vein, the most important ingredient for success is one that no workbook can provide, namely the will and commitment of those who lead and govern a given community or region. With the strong support and encouragement of the Executive Office of Communities and Development, among others, we're confident we've assembled an excellent reference document to which we hope future supplements will be made from time to time. What is most important now, however, is that the contents of this report are used and used often by planners and decision-makers at all governmental levels. This will be the most convincing evidence of our report's value, not only the Pioneer Valley Region's 43 cities and towns, but ideally, hundreds of other municipalities and metropolitan regions where growth and development concerns have risen to the top of the public agenda.

I believe this report is still another proof of the Pioneer Valley Planning Commission's steadfast commitment to the 43 cities and towns that constitute its planning region and to the practice of fostering solutions that are at the cutting edge of shaping a positive future for our region and its 600,000 residents. It is also proof that realizing a better future requires work and a full investment in regional cooperation and action.

Timothy W. Brennan, Executive Director
Pioneer Valley Planning Commission
West Springfield, Massachusetts
June 15, 1988

WHAT'S RIGHT FOR YOU?

Strategic Planning For Your Community

Prepared by:
City of Leominster
and
Land Use, Inc.

March 1988

The preparation of this report was funded by a grant from:
Massachusetts Executive Office of Communities and Development

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INTRODUCTION

Throughout the Commonwealth communities of all sizes are experiencing growth and change. Citizens and officials are frequently aware of problems that either have already arisen or may soon arise as a result of growth and change.

What symptom of unmanaged growth is worrying your community?

- **A threat to natural resources?**

- Pollution of groundwater
 - Too much development in your aquifer recharge areas
 - Erosion and/or pollution from development in the watershed of your public water supply
 - Threats to certain wildlife habitats

- **Escalating housing costs and loss of housing choice?**

- General escalation of costs
 - Preponderance of seasonal home construction
 - Preponderance of condominiums
 - Lack of rental units
 - Lack of family units for working households
 - Older homes and neighborhoods being converted to commercial

- **Loss of traditional or potential economic base?**

- Residential incursion into commercial or industrial zones
 - Strip development along roads
 - Loss of scenic vistas and other qualities that attract tourism
 - Closing or cutback of traditional employers

Whatever the symptom that has caught your local public's eye, you probably share with other Massachusetts communities the feelings of:

- **Loss of community character**

and

- **Loss of control over your community's future**

**Whatever your symptom of unmanaged growth,
the challenge that confronts you and other local leaders is:**

**To gain support and confront immediate pressing
problems,**

while at the same time...

**to assume a strong planning and management stance
so as to be in a position to shape future changes.**

This handbook is organized so as to assist local citizens and officials to get out of a reactive, defensive stance and to get into a positive, assertive stance.

Experience across the Commonwealth has shown that the key to charting a successful course toward growth management is to follow a sequence of steps:

1. identify clearly the most pressing symptoms of growth management-related problems
2. consider alternatives for quick responses to the pressing symptoms taking into account your community's administrative, financial, and political situation
3. combine the selected quick response(s) to a pressing problem with short-term steps to address the underlying need to plan and initiate a broad-based growth management effort
4. begin the intermediate to long range task of comprehensive planning and on-going land use management and administration.

This handbook is organized to help guide you along these steps. While each of the Commonwealth's 351 cities and towns is unique, local leaders can learn from the experiences of their counterparts in other towns. Approaches to planning and decision-making that worked for others may very well work for you. You can use sample provisions from other towns' zoning bylaws as a first draft that can be modified to fit your town's needs and situation.

The important thing is

to get started,

to feel that you are moving in the right direction, and

to know that you need not -- and should not -- struggle in isolation.

The handbook's approach is based upon assumptions regarding local growth management in Massachusetts.

1. Broad-based local understanding of, and support for, municipal growth management policies is absolutely essential to:

- adopting goals for the community's future
- setting realistic objectives
- achieving passage of necessary bylaws and budgets
- implementing policies over time
- administering and enforcing local regulations.

2. A broadly representative core group of local citizens and officials can spearhead the local planning and management effort, combining information, advice, and resources from outside with their own understanding of their community and their own ability to garner local participation and support.

3. Examples of actions, bylaws, and regulations from other communities can be very useful when they are adapted to the local situation.

4. There are many sources of information and assistance available to local municipalities; the key is to understand when and how to tap them during the course of an on-going effort.

MARSHALLING A QUICK RESPONSE

STEP ONE: DIAGNOSE THE MOST PRESSING SYMPTOM(S) OF INADEQUATE GROWTH MANAGEMENT

A clear and careful answer to the question, "What's the problem?" helps direct a response that is focused, effective, and avoids an overreaction.

Carefully consider the growth and change that is happening in your community. Write down answers to the following questions.

A. Are all kinds of development a problem, or just certain kinds?

Large scale commercial? Large scale residential? Seasonal homes? Attached residential? Approval Not Required single houses with frontage along town roads? Conversions and reuse of older structures?

B. Is the problem spread throughout town or just in certain areas?

Along roads and highways? In the watershed or on an aquifer? On your waterfront or in your historic village? In specific zoning districts? In outlying parts of town? On farmlands?

C. Specifically what are the negative results that worry the community?

The fiscal impact upon the Town? How developments look? Loss of potential economic base to residential use? Inefficient use of land? Water pollution? Specific groups being unable to find housing?

D. Is there a time dimension to the problem?

Are engineering studies or capital improvement projects underway but not yet in place to address the problem?

E. Are negative consequences already happening, or are you foreseeing that they will or may happen if you don't take action soon?

Compare your answers to these questions with the answers of other officials and local leaders in your community. See if you can agree on a combined list of answers.

Use the answers to these questions to:

- **define the specific growth management-related problems that confront your community**
- **identify the problems that a majority of citizens appear to agree are problems**
- **order the problems in terms of which ones require a quick response, and which ones you can take a little more time to address.**

Step Two: Select a Growth Management Tool that Accomplishes What is Needed to Address the Key Features of the Most Pressing Problem(s).

Other towns' experiences have shown that a quick growth management reaction can be adopted by local communities if:

- you have identified a pressing growth-related problem that poses a threat that requires immediate action,
- a large majority of your fellow citizens agree,
- and
- the resolution you propose clearly focuses upon the identified problem.

Other towns' experiences also show that if you try to mount a quick growth management response that is too broad in scope or that does not have a broad enough base of local support, you may lose ground in the long run.

Unforeseen consequences of hasty growth control measures may create more problems than you solved.

Political polarization may make it difficult to achieve the consensus necessary to follow up your short term response with a complete, on-going growth management program.

The examples listed below illustrate how some of your fellow communities focused their short term response.

It is important to note that in no case was all development stopped. Whatever the growth controls that have been adopted, proposals already "in the works" of the development review process continue to go forward.

It is also important to note that in most cases, planning in advance could have averted the problems that caused communities to take an "emergency stance". Of course, if you feel that your back is up against the wall, it is no consolation to know that planning could have avoided the current situation. The point to remember is that even as we deal with today's pressing situation, let's get into a position to make sure that we don't find ourselves up against a similar wall in the future.

When the need was to protect a natural resource from excessive development:

Gardner passed a Water Supply Protection Ordinance that limited permitted uses and increased minimum lot size.

(The boundaries of the public water supply's watershed had already been mapped, and the City already owned a large portion of the land affected by the ordinance change.)

Cohasset's Board of Health voted a 15 month moratorium on new septic systems within 1000' of any Town well or within the designated watershed district.

(During the 15 months an engineering study was conducted and led to subsequent changes in regulations.)

Duxbury Increased minimum lot size from 1 acre to 2 acres for 18 months while a study was conducted on their aquifer.

(The study showed that a 1 acre minimum lot size was sufficient, so the town reduced it back to 1 acre, with prohibitions on denser or mixed use developments.)

Brewster restricted building along other than approved roads in a rural district which featured archaeological significance, the headwater of a herring run, 3 great ponds, and potential public well sites.

(The study that was conducted during the moratorium provided the basis for subsequent acquisition of sensitive areas)

When the need was to gain more information about large scale developments in order to make decisions:

Charlemont adopted Special Permit Application Procedures that spell out the required contents of a site plan and also the contents of a Development Impact Statement for proposed projects that may have a major impact upon the town.

When the need was to get some control over large scale developments:

Gardner adopted Special Permit Criteria and Site Plan Review for developments over a specified size.

(This took 5 months.)

Royalston adopted Large Scale Development Review.

(Note that a rural town and a city will choose different definitions of what constitutes a "large scale development".)

When the need was to phase development over time so that the municipality could prepare for delivery of services:

Franklin adopted a Phased Growth Provision that limits the total number of building permits that could be issued each year.

Leominster adopted a Development Scheduling Provision that limits the portion of each large development that could be built each year during periods of intense building activity.

Edgartown adopted a Subdivision Scheduling Provision that allows each subdivision to convey only 10 lots per year.

When the need was to prevent residential incursion into the economic base:

Gloucester prohibited attached residential units (high rise condominiums) for two years in their harbor district.

(A comprehensive planning project is drafting new regulatory changes.)

Hatfield prohibited residential development in their industrial zone while they conduct a comprehensive land use planning project.

In summary: A municipality has a number of regulatory tools which can be adopted or amended so as to provide a quick response that addresses specific pressing growth management needs. These tools include:

Amendments to Zoning Text:

- Development review procedures
 - special permit criteria
 - site plan review
 - impact assessment
- Development scheduling or phased growth
- Changes in density, frontage, lot size requirements, uses allowed in existing districts
- As a last resort, a moratorium.

Amendments to Zoning Map:

(Note need for necessary mapping to have been accomplished)

- Creation of new districts (e.g. water supply protection)
- Change boundaries of existing districts

Adoption of New Subdivision Regulations:

- Clarify development review process
- Require more information for preliminary and definitive plan review
- Improve development standards for utilities, roads, sidewalks, buffering
- Increase performance guarantees

Adopt or Change Other Regulations:

- Board of Health Regulations
- Driveway permits
- Increase fines
- Increase application fees to cover costs of application review

In order to decide whether one of these tools can be adopted to address your community's most pressing problems, consider the following questions:

Does it focus on the problem(s) you have identified?

Can you quickly generate the necessary support for achieving passage/adoption? (2/3 Town Meeting or City Council; majority vote by Planning Board, Board of Health)

Could local officials (and staff) administer it?

Does it avoid making development so costly that you would become exclusionary?

If the answers to these questions are "Yes", move ahead with your effort to adopt a quick resolution that will handle the immediate problem and allow you to shift over to longer term considerations.

If the answer to any of these questions is "No", you should invest the time and effort required to:

shape growth management tools that directly focus upon your community's problems and opportunities

build the necessary broad-based consensus

gain the local capacity to administer new (and existing) regulations

balance the needs for development with the needs for conservation.

The first part of the paper is devoted to a general discussion of the problem of the origin of life. It is shown that the problem is not only a scientific one, but also a philosophical one. The scientific aspect of the problem is concerned with the question of how life arose from non-life. The philosophical aspect is concerned with the question of whether life is a necessary part of the universe or whether it is a mere accident.

In the second part of the paper, the author discusses the various theories of the origin of life. He begins with the theory of spontaneous generation, which was the dominant theory of the origin of life until the middle of the nineteenth century. He then discusses the theory of biogenesis, which was proposed by Louis Pasteur in 1859. Finally, he discusses the theory of abiogenesis, which was proposed by Oparin and Haldane in 1924.

The third part of the paper is devoted to a discussion of the various experiments that have been conducted to test the various theories of the origin of life. He begins with the experiments of Spallanzani, who in 1765 showed that life does not arise spontaneously from non-life. He then discusses the experiments of Pasteur, who in 1859 showed that life arises from pre-existing life. Finally, he discusses the experiments of Oparin and Haldane, who in 1924 showed that life can arise from non-life under certain conditions.

In the fourth part of the paper, the author discusses the various problems that are still outstanding in the study of the origin of life. He begins with the problem of the origin of the first organic molecules. He then discusses the problem of the origin of the first cells. Finally, he discusses the problem of the origin of the first living organisms.

The fifth part of the paper is devoted to a discussion of the various philosophical problems that are raised by the study of the origin of life. He begins with the problem of the relationship between science and philosophy. He then discusses the problem of the relationship between the origin of life and the existence of God. Finally, he discusses the problem of the relationship between the origin of life and the evolution of man.

In the sixth part of the paper, the author discusses the various practical applications of the study of the origin of life. He begins with the application of the study of the origin of life to the study of the evolution of man. He then discusses the application of the study of the origin of life to the study of the evolution of other organisms. Finally, he discusses the application of the study of the origin of life to the study of the evolution of the universe.

The seventh part of the paper is devoted to a discussion of the various historical aspects of the study of the origin of life. He begins with the history of the study of the origin of life in ancient times. He then discusses the history of the study of the origin of life in the middle ages. Finally, he discusses the history of the study of the origin of life in the modern era.

In the eighth part of the paper, the author discusses the various future prospects of the study of the origin of life. He begins with the prospect of the study of the origin of life in the twenty-first century. He then discusses the prospect of the study of the origin of life in the twenty-second century. Finally, he discusses the prospect of the study of the origin of life in the twenty-third century.

The ninth part of the paper is devoted to a discussion of the various conclusions that can be drawn from the study of the origin of life. He begins with the conclusion that life is a necessary part of the universe. He then discusses the conclusion that life is a mere accident. Finally, he discusses the conclusion that life is a necessary part of the universe and a mere accident.

LAYING THE GROUNDWORK FOR SHIFTING FROM DEFENSIVE REACTION TO POSITIVE ACTION.

At the same time that you are marshalling a quick response to symptoms, you can pull together the representative group that will spearhead longer range planning, and you can call upon assistance to help you get under way.

STEP ONE: FORM A LONG RANGE ADVISORY COMMITTEE.

Give careful thought to the diverse groups within your community who need to have a say in long range planning, who have expertise and/or authority that will be needed, whose support will be needed, and who therefore should be represented on this broad-based, action oriented committee. Be sure that different points of view are represented on your core committee so that debate and compromise will take place among its membership.

It will greatly add to the Committee's effectiveness if it is formally established by the Mayor, Council, Selectmen, Town Meeting, or other authoritative body. Members should be appointed and their charge spelled out. They should be given the mandate to help the community reach for a desired future, to inform citizens and officials about their options, to work with officials to tap into outside resources, and to present recommendations.

Examples:

Auburn's Master Plan Revision Committee included all members of the Planning Board; the Administrative Assistant; the Building Inspector; representatives of the Board of Selectmen, the ZBA, the Conservation Commission, and the business community. Representing diverse viewpoints, and with much public input, the committee members worked out a compromise zoning package that they could all support at Town Meeting.

Leominster's Strategic Growth Management Committee included the Mayor, representatives of the City's Boards and Departments, the business community, local developers, and citizens at large. Of special importance was that all City Councilors were members of the Committee. When it came time for them to vote on proposed zoning amendments, the Councilors had a detailed understanding of what was proposed, and why.

STEP TWO: IDENTIFY THE INFORMATION AND/OR SPECIFIC EXPERTISE THAT YOU ARE MISSING, AND MAKE USE OF THE ASSISTANCE THAT IS AVAILABLE.

There are many sources of information and technical assistance that a municipality can call upon. The key to tapping them is knowing exactly what you need and why you need it.

Water Resource Concerns

If your concern is the quality of your drinking water or if you need approval of new sources of water:

Call the Department of Environmental Quality Engineering
Division of Water Supply
1 Winter Street
Boston, MA 02108
617-292-5770

or

Call your regional DEQE office

If your problem is pollution of surface water quality because of sewage:

Call the Department of Environmental Quality Engineering
Water Pollution Control
1 Winter Street
Boston, MA 02108
617-292-5646

If you need help with long range planning for your water supply:

Call the Department of Environmental Management
Division of Water Resources
100 Cambridge Street
Boston, MA 02202
617-727-3267

For help with local water resources planning call:
Massachusetts Water Resources Commission
100 Cambridge Street
Boston, MA 02202
617-727-9800

or

Call your Regional Planning Commission

If you are worried about protecting your aquifer:

Call the Department of Environmental Quality Engineering
Division of Water Supply
Aquifer Land Acquisition Program
1 Winter Street
Boston, MA 02108
617-292- 5770

Land and Natural Resource Concerns

**If you need mapped information about your community's
natural resource areas:**

Call on your Regional Planning Commission to see what maps are available
of wetlands, aquifers, floodplains. (See Appendix)

The Soil Conservation Service and your Regional Conservation District are
also good sources for mapped information and mapping services.

If you want to protect Agricultural land:

Call the Department of Food and Agriculture
Division of Food and Agriculture
Safford House, Old Common Rd.
Lancaster, MA 01523
617-727-9800

For conservation land and recreation land information:

Call the Division of Conservation Services
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202
617-727-1552

or

Call the Massachusetts Department of Fisheries, Wildlife and
Environmental Law
100 Cambridge Street
Boston, MA 02202
617-727-1614

For questions about Conservation or Wetlands law:

Call the DEQE Division of Wetlands

1 Winter Street
Boston, MA 02108
617-292-5695

or

Call the Massachusetts Association of Conservation Commissions

Lincoln Filene Center
Tufts University
Medford, MA 02155
617-381-3457

or

Call the Conservation Law Foundation

3 Joy Street
Boston, MA 02108
617-742-2540

If you want to know about Flood Plain Management:

Call the Department of Environmental Management

Division of Water Resources
Flood Hazard Management Project
617-727-2698

If you are concerned about the impacts of a large scale development:

Call the Massachusetts Environmental Protection Act Unit

100 Cambridge Street
Boston, MA 02202
617-727-5830

If you want to protect scenic areas along state highways:

Call the Massachusetts Department of Public Works

Open Space Program
10 Park Plaza
Boston, MA 02116
617-973-7323

If you want to protect scenic rivers:

Call the Massachusetts Department of Environmental Management
Scenic Rivers Program
100 Cambridge Street
Boston, MA 02202
617-727-3160

Economic Development Concerns

**If you need assistance concerning your community's
current or future economic development needs:**

Call the Executive Office of Communities and Development
100 Cambridge Street
Boston, MA 02202
617 727-7180

General Planning Concerns

**If you need general planning assistance or information
about starting a comprehensive planning effort:**

Call on your Regional Planning Commission
or
Strategic Planning Program at EOCD
100 Cambridge Street
Boston, MA 02202
617-727-3197
or
Massachusetts Housing Partnership
Municipal Advance Program
100 Cambridge Street
Boston, MA 02202
617-727-8690

If you want to assess your community's basic needs:

Call your Regional Planning Commission or the Strategic Planning Program at
EOCD.

**If you want to know the impact of
unexpected development:**

Call the Strategic Planning Program at EOCD.

**If you need to evaluate the proposed
plans of a developer:**

Call the Municipal Advance Program
EOCD
100 Cambridge Street
Boston, MA 02202
617-727-8690

**If you need information about Subdivision
and Zoning laws:**

Call the Office of Municipal Development at EOCD
617-727-3197

**If administering and enforcing your current bylaws is a
problem:**

Call the Incentive Aid Program at EOCD.
617-727-3197

If your need is transportation planning:

Call your Regional Planning Commission
or
Massachusetts Department of Public Works
Bureau of Transportation Planning and Development
10 Park Plaza
Boston, MA 02116
617-973-7310

**If the range of housing choice is limited under current
market conditions:**

Call the Massachusetts Housing Partnership.
617-727-7824

STEP THREE: DO A PRELIMINARY "BUILDOUT SCENARIO" FOR YOUR COMMUNITY.

A buildout scenario is an estimate of your community's total capacity for additional development under your existing regulations.

A community that is "built out" is in the next to last phase of its physical development. All developable land has been used, and from there the only options for further development are reuse or increased density of use (for example, tear it down and rebuild bigger and higher). Even though it may be many years before your community is built out, constructing a buildout scenario is an important exercise because:

It allows you to anticipate the long range, cumulative results of yearly growth; and

It provides a clear understanding of the potential effects of each possible alteration of your zoning bylaw.

If your community is already approaching buildout, do a variation of this exercise that concentrates upon how much redevelopment your current regulations would allow in areas that are not developed to their maximum density.

Materials you will need:

- A large print of a map of your town that shows public ways
(You will work on this.)
- A USGS map, or other map(s) that show wetlands, steep slopes, state forests, existing development, and other impediments to new development
- A string marked according to the scale of your working map to show 500' intervals
(You'll use this "distance template" to measure distance along the roads on your map.)
- A clear plastic sheet -- or tracing paper -- on which you have drawn a grid of squares to represent acres at the scale of your working map. To draw a 5 acre square, have each side represent 467', or as close as you can get to that given the scale of your map.
(You'll use this "area template" to measure developable acres.)
- Colored felt tip pens.

Steps to Follow:

Steps to Follow:

1. On your working map shade out the areas that would be difficult or impossible to develop, including the town center, other existing built-up areas, water bodies, wetlands, steep slopes, public or utility-owned land. Refer to the USGS (or other reference maps) and your own familiarity with the town, and approximate these areas as best you can.
2. Mark the roads and ways in town along which development is allowed by right.
3. Using the distance template (the string), measure the total distance along these roads that could be developed. Leave out steep slopes and wetlands, and be sure to measure both sides of the road when appropriate. Add up these linear distances for each zoning district in your town.
4. For each zone, divide the total developable linear distance by the minimum frontage requirement specified in your current zoning. The result will be an estimate of the total number of potential developable frontage lots allowed under your current zoning.
5. Using the USGS map, count the number of houses that currently exist along the roads you have measured. Subtract this number from the total number of potential developable lots that you got in Step #4. The result will be a rough estimate of the new houses that could be constructed by right under your existing zoning.
6. Locate the large parcels that are undeveloped, have adequate access, and could be sold. Using the area template (the grid of squares), estimate the acreage in these parcels and add them up for each residential zoning district in your town. Divide these numbers by the minimum lot size designated for each zone. The result will be an estimate of the total potential units that could be built under your existing subdivision regulations.
7. As you make these rough estimates of the potential development allowed under your current land use regulations keep notes on your findings.

(Note: For the purposes of illustration, these steps concentrate on residential development because in most communities most undeveloped land lies in residential zoning districts.)

STEP FOUR: DO A PRELIMINARY ASSESSMENT OF THE FISCAL AND SERVICE IMPLICATIONS OF DIFFERENT LAND USES IN YOUR COMMUNITY.

The buildout scenario exercise graphically illustrates the potential for development, or redevelopment, in different parts of your community. The next step is to consider the implications that such future development has for providing -- and paying for -- municipal services.

A careful look at the tax revenues and municipal costs associated with different kinds of development and open space:

- **helps provide a balanced view of the contributions to community life made by different land uses**
- **brings the core committee into close working contact with the officials who provide municipal services**
- **is a crucial first step in the capital improvements planning process.**

The Long Range Advisory Committee needs a clear understanding of the community's financial picture, ability to provide services, capital improvement needs and the opinions of town leaders on how current land use regulations are helping or hindering the town or city's ability to manage growth. A number of different officials will have important experience and viewpoints to contribute to this joint deliberation. They include: the Assessors, Head of DPW, Police Chief, Fire Chief, Finance Committee (or Comptroller), School officials, Recreation Department, Town Engineer, Building Inspector, Executives and Legislators (Selectmen, Mayor, Councilors, Aldermen).

Start with informal interviews of these officials. Assign different members of the Advisory Committee to make appointments to meet with the officials at their convenience in their offices. At these interviews explain the purpose and scope of the thinking that you need to do together. Outline the kinds of information and observations that the Committee would like the officials to contribute.

Use these interviews to examine the following questions:

What is your community's financial picture at present? What are the relative tax revenues generated by residential, commercial, and industrial uses? Which parts of your tax base are growing? Which are declining? What are your other sources of revenue and/or financial assistance?

How do the different sectors of your community compare in their need for municipal services compared to the tax revenues they generate? You will find that, in general, residential uses "cost" the community more than commercial

and industrial, because of the schooling costs associated with families and because of the higher assessed value of most commercial and industrial buildings -- a value which results in higher total tax revenues. But how are tax revenues and municipal service requirements changing in the different sectors? Is there a changing complexion to your industrial uses? Commercial uses? Types and values of homes being built?

What are your current unmet capital improvement needs? What is the state of your roads, public buildings, sewer and water systems, recreation facilities? What has prevented you from keeping up with capital improvement needs? What would it take to catch up?

What impact would potential new development have on your ability to deliver municipal services? Where could you welcome -- or at least absorb -- development, and where might development trigger significant new expenditures?

What is your current capital improvements planning process? Is it formalized? Is there, for example, a five year plan? Who is involved in decision-making? Do responsible officials feel that citizens understand their departments' needs and provide adequate support when budgets are being decided?

What difficult decisions do officials anticipate need to be made over the coming years? What are the "unknowns" that need to be resolved in order to plan for, and provide for, municipal services?

Above all,

How do current land use regulations and administrative procedures help or hinder the community in planning for and providing for municipal services? The answer to this question will give a very clear idea of how your comprehensive planning effort can address the fiscal and municipal service-related aspects of growth management.

Working at answers to these questions will take careful thought and discussion. Often the busy heads of department need time to think about the issues that you are talking about, and time to pull together the facts and figures that you need. Work out with them what should be the time frame and setting of a joint meeting. During the work day? An evening? In Town or City Hall? At the local school? Work for a time and setting that will help achieve a constructive pooling of thoughts and information.

At your joint meeting work to establish what points of agreement there are, and where there is uncertainty or disagreement. Try to pin point where additional information or technical advice would help resolve uncertainties. If a series of meetings is required, end each one on time and write up a summary of what came out of each meeting. People generally will keep coming to such meetings if they can see progress. Also, this may very well be the first time that all these

individuals have had the opportunity to sit down together to compare notes on their respective efforts to serve the community.

In light of their busy work days, clarify with department heads what is the best way for the Committee to stay in working touch with them as your comprehensive planning effort proceeds.

As a result of these working discussions, the Committee will have:

- **gained a practical perspective on the relationship between potential development and community finances**
- **established an efficient working relationship with the officials who will be responsible for implementing a growth management plan**
- **generated some clear preliminary ideas about how existing regulations and procedures might be improved.**

ACHIEVING A LONG RANGE COMPREHENSIVE PLAN WITH SUPPORTIVE LAND USE MANAGEMENT TOOLS AND ADMINISTRATION.

Comprehensive planning, public consensus building, amended regulations, administrative procedures, and enforcement must all work together.

A Master or Comprehensive Plan

During the 1960's and early 1970's many Massachusetts communities drafted Master Plans. This earlier generation of Master Plans tended to be heavy on data but light on action steps and implementation. Another common difficulty was the lack of public awareness about what the Master Plan document actually said; some towns have trouble even finding copies of the original Plan. In many instances the Master Plan has not been used consistently to guide local governmental decisions, and people think of it as having been irrelevant. For these reasons the term "Master Plan" is sometimes out of favor and has been replaced by the term "Comprehensive Plan".

Whatever you call it, your community's Master Plan should:

- provide a concise base line of data about your town's environment, natural and cultural resources, population, housing stock, economic base, needs and opportunities
- describe the trends of change that have affected your town and make projections about how those trends might continue or change in the future
- articulate a shared community vision of what you want your town to be like in the future
- outline the growth management policies and objectives that are to shape your local regulations and guide your public decisions.

The purpose of your community's Master Plan is to map out where you want to go, and to provide a yardstick by which to evaluate the range of options that are open to you.

A good Master Plan will serve as a reference for citizens and officials as you make your daily administrative decisions; it will serve as a continuing reminder of what you have all agreed to try to accomplish.

By state law in Massachusetts, it is the responsibility of the Planning Board to formulate and adopt the local Master Plan. A Master Plan has legal status when it is adopted by this group of officials.

Practically speaking, a Master Plan has much greater support and impact when it is formulated as part of a broad-based community effort. Since the Master Plan's implementation will depend upon local bylaws, regulations, and budgets, many communities have found it useful to obtain a vote of adoption of the Master Plan from Town Meeting, the City Council, or other local body whose votes will be necessary for implementation over the years.

A Master Plan is not "engraved in stone". It can -- and should be -- reviewed and updated as conditions change.

Organizing Your Community for Planning

Until 20 years ago most public planning was done by groups of local officials and planners/architects who were isolated from the community. Times have changed. Now it is mandated by law -- and recognized as politically essential -- that citizens be involved with the plans for their community. Effective plans are built not only on a solid base of data, but also on a solid base of public support.

This section presents ideas on how local people can be encouraged to participate in local planning, and it discusses how the group responsible for the involvement program should organize themselves. There is also a list of things to keep in mind in order to avoid some stumbling blocks and to make everyone involved feel that the effort was successful. Citizen participation can be exciting; it can also be frustrating and can seem to slow down "real" progress. The following ideas focus on how to accentuate the excitement and minimize the frustration, with the end result being a stronger planning process.

Public Access versus Public Involvement

It is required by law that the public have a say in planning processes. The Open Meeting Law (Chapter 30A, Section 11A of the Massachusetts General Laws) gives the conditions under which government bodies can hold meetings that exclude the general public (i.e. contract negotiations). Beyond that, however, all meetings are required by law to be open to the public. This law is important to keep in mind not because it mandates participation by citizens, but because it is basic to the concept of public decisionmaking being open to public critique. Citizen participation strategies go the next step beyond open information; they work to achieve decisions based on public knowledge and public opinion.

Getting Your Core Committee Organized

Before jumping headlong into a citizen participation program, it makes sense to think about the objectives of the program, who is going to do the work, and how people could become a part of the planning process in the way that would be most efficient for both your committee and those who become involved. A good participation strategy involves some work and a lot of details. Responsibilities should be delegated to cover such tasks as publicity of the program, working with the press, arranging a place to meet, producing any handouts or working materials that might be needed, developing an agenda and objectives for the first meeting, and deciding who will run that first meeting. A well organized program moves along more quickly and avoids the frustration of extra meetings due to lack of information or preparation. This can mean that more people will get involved and stay with the process from beginning to end.

Preliminary thinking will build upon the considerations that helped you set up your Advisory Committee. Who else should be involved at some point during the planning effort? To whom is the project most relevant? Whose political or financial support will be needed? Who might oppose the project and thus should be engaged at early stages of the process in order to work out necessary consensus and compromises? How much time and money is there compared with the range of people who should be involved with the planning effort? In general, one goal of public participation should be to open the planning process to as many people as possible and give anyone who is interested a chance to affect the outcome.

Expanding Your Base

Once you have organized yourselves, it is time to address the bottom line: getting people involved. Although newspaper articles, posters and mailings should all be used as much as possible, nothing works like a personal contact. Make a list of everyone who might have interest in the project or who could influence other people to become interested in the project. Divide up that list and call those people once the first meeting or event has been organized. Give people enough time to fit the meeting into their schedules, but don't call so far before the meetings that its immediacy is diminished.

The next step is to think about organizations. A good place to start is with local government boards. It is generally easy to get information out to these people, and given their involvement with town government, they already have an interest in public affairs. Due to the number of night meetings these people already attend, make sure any night meeting you organize falls on the least conflicting night of the week. (Note how useful will be the working relationship you have already established during your preliminary assessment of the fiscal and service implications of land uses, above.)

After devising a strategy to involve government organizations, make a list of other general groups in the community. This could include civic and service

organizations, the Chamber of Commerce, ethnic groups, religious organizations, professional affiliations and neighborhood associations. Try to make the list as complete as possible; get advice from others if you are unfamiliar with all the potential groups. For each organization find the name and number of the president, public relations coordinator, or an acquaintance who could find out if there is interest in sending a representative to your first meeting.

Once a strategy has been developed for organizations, look at the range of people who have been contacted so far and look for the holes. Who wouldn't hear about the project? Who isn't involved in any of these groups? The answers to these questions should be used as the foundation for a broad community publicity campaign. Press releases, posters, radio ads, and mailings are all options for reaching the general public. It is important to note that these ideas are not presented without realizing that financial and time limitations will define how far a publicity campaign can go. In every participation strategy, lay out the finances, decide how much can be spent, and work with the resources you have of time and money.

Before making each contact, ask the question, "What would convince these individuals to take the time to come to a meeting?" The agenda must have relevance to them. General discussions of policies or planning issues are rarely compelling draws; safety, tax rates, change in the neighborhood are compelling draws. Be prepared to state clearly how the project or issues under discussion could directly affect the daily life of the people whose participation you are seeking.

Ways to Get Public Input

Be both practical and creative when planning your public involvement sessions. There are many ways to find out what people think about a planning project and the direction it should take. A range of involvement formats is presented below, and the most effective involvement strategies will use a combination of approaches selected according to how well each approach will reach the specific individuals you wish to involve.

Personal Interviews. If you have the time and people to do it, interviewing can be a very good method to get in-depth opinions and advice from citizens. One major drawback is that personal interviews are time consuming. Another is that it takes time to decide which questions should be asked and to train the interviewers to ask questions in a consistent manner. If it is important to get a scientifically valid response, then even more time will be required to draw up a questionnaire that can be analyzed statistically and to carefully train the interviewers to stay within the details of the questionnaire. On the other hand, informal conversations at which careful notes are taken can also be very informative.

Opinion Survey. If the population that needs to be polled is large and finances are sufficient, then a mail or telephone survey should be considered. Done carefully, such a survey can reach a majority of the population of a town or -- through a good sample -- a cross section of the population that is representative of the whole. Write the questionnaire carefully; be sure it will be clear to someone who is unfamiliar with the language of planning. As in all strategies, find a way of presenting the materials that will catch the citizen's interest. Whereas most involvement strategies bring to one room people who have some interest in the project, a survey will end up going to many people who have never heard of the project. The format of the questionnaire or telephone interview must encourage them to take the time to participate.

Focus Sessions. If detailed information or discussion is important, but there isn't enough time or money for personal interviews or surveys, then focus sessions may be helpful. A focus session pulls together a small group of people to answer questions and discuss issues, all under the direction of a moderator or facilitator. (The joint meeting of officials to consider fiscal and service implications of development is a good example of a focus session.) Focus sessions can be particularly helpful if there are several general topics involved in the project. Different people from a variety of backgrounds and interests can be brought together to concentrate on each of the different topics. The small groups discussion format of focus sessions can often lead to joint understanding and analysis that goes well beyond what would be possible in a personal interview, while at the same time allowing for more individual expression than may occur in large group meetings.

Public Meetings. The traditional way to introduce issues to the public and gain input is through a well publicized open meeting. This approach works well for presenting the issues surrounding a project to a large group of people and testing the waters of public opinion. Public meetings can be directed at the entire population or to a smaller sub-group, such as a neighborhood. A series of smaller public meetings held throughout town can be a very effective way to give everyone who is interested a chance to hear the issues, and if they like, to comment. Public meetings must have a strong moderator, however, since with large groups it is very easy to veer off the course of discussion for the evening and end up talking about the particular interests of a few parties.

Workshops. If the project is complicated and requires a lot of information to bring people up to speed, then a workshop should be considered. A Saturday morning session can be very effective for teaching a group the fundamentals of the project and then working with them on the problems that are involved. A good workshop requires a lot of preparation, but attendees become more interested in and informed about the project, and often seek to work closely with the project.

By combining these and other involvement techniques a public involvement effort can cover a variety of topics at a variety of depths, and reach many people. Other ways to involve people and spread the word about the project

include informational fairs, lectures and slide shows, and classes for school children. Think about involving as many people as possible in the effort. Is there a high school class that would do interviews? Is there a civic organization that would make telephone calls? Who could financially support a community-wide survey? Would the local post office cooperate in distributing surveys? What local groups would sponsor lecture nights? The possibilities are many, and the more exciting they are, the more likely it is that more people will participate.

Some Rules of Citizen Participation to Keep in Mind

If one thing is clear from this discussion, it is that there is no one way to involve the public in local planning. Each situation will have different possibilities and limitations. An understanding of the situation is critical before designing a citizen participation strategy. Despite the variety of circumstances a community may find themselves in, there are some general rules to think about before, during, and after a citizen participation program.

People have other things going on in their lives. Whatever involvement is asked of them must be relevant to their personal situations, it must recognize that they are giving their time freely, and it must be a non-threatening atmosphere of involvement. (No one wants to go to a long meeting and be criticized for his/her opinion.)

Set concrete objectives. A citizen participation strategy that drags on and on, and has accomplished nothing after weeks and months, is a strategy that will quickly lose participants.

Work with the opposition. Every project, in every city or town, will have its opponents. Look on those criticisms as a challenge to prove the need for the project. Involve those people as much as possible; their criticisms may be based on misunderstandings or on legitimate insights. Dealing with both will be valuable to the project.

Involve a wide cross-section of the community. Sometimes it is easy to bring people to a public meeting, but are those people representative of the rest of the community? Think about who needs to be reached, who will be difficult to reach, and how to reach them.

Being "involved" doesn't mean that a citizen wants to do all the work. Make realistic demands on people's time and abilities, and recognize that the sponsoring organization is primarily responsible for getting the work done.

Democracy still requires leadership. One of the most frustrating experiences for a would-be participant is to go to a meeting and leave feeling that nothing was accomplished and that the sponsoring organization doesn't know what it is doing. Encourage comment, criticism, and debate, but always direct the meeting and keep the objectives in sight.

Keep the project in the community's eye. Throughout the process, let the general community know that progress is being made. It is sometimes easy to find a group of interested people, turn them into the core working group, and forget about keeping the lines of access open to others. Publicize each step of the project, and always reach out for participation.

Take small steps. Education is time consuming. Public debate is time consuming. Although projects have deadlines that must be observed, keep in mind that the general public may not be ready to move as quickly as you are. If there is time, set an adequate work schedule that will give people a chance to comment and understand the implications. Many months of work can be lost on the Town Meeting floor when someone stands up and successfully argues that just a small group was responsible for the decisionmaking, and that the public had no input.

Success is access. A successful public participation strategy is one that creates a process that makes it easy for anyone who is interested to have access to the information and decisionmaking involved with the planning project. Any participation, even the smallest amount, often brings with it perspectives and advice that strengthen the process and help the organizers realize that there is always another way of looking at planning.

Building a consensus for the local comprehensive plan is not getting everyone to agree to all the recommendations that you would like to make. Consensus building is

- establishing the highest common denominator of agreement
- informing and compromising until a large majority of citizens can support -- and vote for -- your community's comprehensive plan.

Growth Management Strategies That Work Together

A comprehensive growth management plan includes a number of strategies, including:

- housing strategy
- economic development strategy
- open space preservation strategy
- capital improvements strategy

Each strategy has its own part to play in maintaining and enhancing the quality of life of your community. To be effective, your growth management plan must be made up of strategies that mutually reinforce each other.

It makes sense that your comprehensive planning consider all these aspects of life in your community. After all, your community is more than just houses or stores or sewer lines or open fields. Your community is a special place where people live, and shop, and work, and play, and enjoy clean air and water. All these aspects of your local environment fit together to make up your community's special character. Similarly, each aspect of your comprehensive growth management plan plays an important role in achieving the future your community desires.

As you map out your long range action plan, keep in mind how your strategies work together. For example:

- Economic development can generate tax revenues to pay for services to residents.
- Flexible development (cluster, transfer of development rights) can pay for and set aside open space.
- Mixed use development can combine specific kinds of needed housing with business and services in areas where municipal services can most easily handle higher densities.
- The location of zoning districts can help alleviate the cost of capital improvements.
- Density bonuses for housing developments can achieve needed recreation facilities, types of housing, or other advantages for the community.

There is no one "best" comprehensive action plan for your community. When you combine and balance the many factors that relate to your situation, many combinations of strategy recommendations are possible. Work for the most complete package you can. Aim for the highest level of consensus and support that your committee can achieve over the coming year, and solidify that support through formal vote and adoption.

Remember that although some ideas and possibilities may have to be laid aside for the sake of reaching agreement this time around, there is always next year...or the year after. As times change, suggestions that once seemed crazy become common sense.

The Role of Regulations and Administration

Regulations are tools that should be shaped to achieve the objectives articulated in your Comprehensive Plan. Administration is the on-going process of daily decisions that carry out the policies articulated by the Plan. The key to successfully implementing your Plan is twofold:

- **Regulations that are shaped to achieve your objectives**
- **An administrative team that works in a coordinated fashion to carry out your action plan.**

Regulations. Each set of local regulations has its part to play in implementing your growth management plan. Although each set of local regulations must be designed within the limits that are spelled out in the Massachusetts General Laws, each set can reflect a significant amount of local preference and decisionmaking.

- Zoning spells out the uses that are permitted on land in each section of town, and the density to which construction can take place. It also spells out the procedures that must be followed in order to receive special permits for the uses that might be allowed, but which need careful evaluation before approval. Zoning is a bylaw or ordinance, and thus requires approval by 2/3 of your community's legislature (Town Meeting, City Council, etc.).
- Subdivision Regulations detail the standards which must be met when development requires the building of a road (that is, when a parcel does not have the required frontage along a public way). Traditionally Subdivision Regulations have concentrated upon road construction standards, but they can also include detailed requirements for information from the developer, and/or landscaping requirements. Since Subdivision Regulations work within the context of density and uses established by Zoning, they are an administrative tool, and are adopted through vote by the Planning Board.
- Health Regulations relate closely to environmental protection and capital improvements. Health Regulations are guided by State requirements, but the local Board of Health (or Health Department) plays a crucial role in enforcement of percolation testing for septic systems, determining which alternative technologies are allowed for on-site septic disposal (e.g. group septic systems), and monitoring the connection of new development into the local sewer and water systems. Local regulations that relate to growth management are adopted by vote of the Board of Health.

- The Capital Improvements Plan is an executive document that outlines the major expenditures that the community will make over time on construction of schools, water lines, sewer lines, central pumping stations, sewage treatment plants, parks, recreation facilities, and so forth. Certain municipal service facilities, for example sewer and water lines, support and/or stimulate denser development. Other municipal "facilities", such as parklands, help maintain open space and add to the open character of less densely settled portions of your community. Clearly, capital improvement planning should correlate with, and can help achieve, the pattern of use and density that your zoning specifies.
- The Development Review Process ensures that each local official has the opportunity and information needed to evaluate proposed developments. While the Massachusetts General Laws outline the legal procedure for reviewing subdivisions, special permit applications, and variance requests, in practice many communities find that inefficient communication causes confusion, lack of needed information, or wasted time and effort as each official tries to keep up with what is happening. The local Zoning Bylaw can spell out the criteria for granting special permits, and can spell out the information that an applicant must provide to reviewing officials. A development review manual can be adopted to clarify "who does what and when" and to instruct applicants about the data and materials that they must submit to officials as part of their application.

Administration

Clearly, zoning is not the only regulatory tool that a community should use to achieve their long range growth management goals. It is, however, an essential one that sets the stage for growth and conservation. The adoption, administration, and enforcement of zoning is the "acid test" of how well your local officials are working together to carry out your community's plan for the future.

What are the respective roles of your administrative team in regard to zoning?

The Planning Board. This board has the responsibility of ensuring that zoning is enforced, that it is kept up to date and that it meets the needs of the town. As well, this board may have special permit granting authority for specific density and land use options (i.e. cluster housing).

The Zoning Board of Appeals. The board's work load is affected by zoning in several ways. Most often, it must decide whether the zoning has created a financial hardship or practical difficulty for a property owner wishing to build a structure. In some towns where the zoning is strict and where there are economic problems, the ZBA could be quite busy. In other towns where the zoning is up to date and reflective of local needs, then there may be little call for its services.

The Board of Selectmen. This board is primarily responsible for setting town policy for growth and development. If zoning regulations are inconsistent with town policies or public expectations, selectmen will receive complaints from angry citizens. Beyond this, the board is often responsible for ensuring that parking regulations and sign requirements are met. Sometimes they will also serve as the special permit granting authority for specific types of development (i.e. Cluster or Planned Unit Development). Sometimes they will serve as the Zoning Board of Appeals. When selectmen, rather than the land use regulating boards, are charged to administer portions of the zoning bylaw, they are in effect side-tracked from their primary duty: setting town-wide policies.

The Board of Health. This is a board that often finds itself in an unpopular position. It is responsible for ensuring that the health and safety of the community are protected. Most often, the board oversees the percolation tests to ensure on-site septic disposal systems will work properly. If, for example, zoning allows for single family units on a ledge or where there is substantial clay, it will be the Board of Health who will determine whether the building could--or should--occur. Beyond this, many communities have in their zoning performance standards governing, for example, noise, odor, and smoke. The Board of Health is typically one of the agents responsible to ensure that these standards are met.

The Conservation Commission. This board has the responsibility to ensure that environmentally sensitive lands are protected. Most typically its members will be involved in determining the location of wetlands and whether proposed developments adhere to regulations that protect wetlands. Thus the Conservation Commissioners should be closely involved in the writing of zoning regulations that pertain to environmentally sensitive areas, (i.e. a wetlands protection overlay). Your town's development review process must incorporate the Commission's information and scheduling requirements.

The Building Inspector. Sometimes called the Zoning Enforcement Officer, this person is responsible for ensuring that there is compliance with all regulations, including zoning and building codes. He/She will inspect, monitor and answer complaints about property, and is backed by the full force of the law. In practice, any inconsistencies, lack of clarity, or gaps in the zoning by-law "come to roost" on the Building Inspector's desk. An often cited axiom is that "a town's zoning is only as good as the enforcement". Therefore, this person plays an extremely important role in maintaining the town's character through administration of local land use regulations.

Other Boards. When a large scale development is proposed for a town, many other boards should become involved. In fact, for such developments, a "Development Impact Kit" should be prepared that requires the developer to provide information on water, sewer, schools, roads and public services. When this occurs it is essential that the Planning Board, as the coordinating agency, obtain input from the Department of Public Works, the School Department, Sewer and Water Commissions, Police and Fire Departments and the Historic Commission as well as the boards that have already been described.

Critical Questions. A critical question that often emerges is, "who does what?". One way to help find out is to prepare a chart that outlines the responsibilities of each board, provides the names of the person on the board and details the type of information that each requires in order to make required decisions. In this way the Planning Board will know who's responsible for what part of zoning and, as well, developers will have an understanding of the data that they must provide. To start with you should ask the following questions:

Who sets policies concerning zoning?

Does the existing zoning flow from a master plan or action plan? Who did the last plan? Is it up to date or do we need more work?

How do we coordinate with other boards involved in zoning? Is there a formal or informal process? Is it working?

Do developers know about new development options, does our zoning system allow them?

Are we knowledgeable enough concerning new development options, and does our zoning system still protect us?

The Range of Regulatory Changes to Consider As Part of Your Comprehensive Planning Project

What are the categories of regulatory changes that your comprehensive planning effort should consider? They include:

- **Refine the "quick response" tools that you adopted previously.**

For example, adjust the boundaries of a water supply protection district. Spell out more completely which uses are permitted by right, which are prohibited, and which require Special Permits. Refine Special Permit procedures and criteria for acceptance. Improve administrative processes to avoid problems that have been encountered.

- **Change the boundaries of zoning districts and/or create new districts.**

For example, expand or reduce some residential or commercial zones. Create a Mixed Use zone for your central core. Create zones that allow higher or lower density uses to correspond with the community's physical base and municipal service structure. Adopt a Village Commercial zone for your village center.

- **Adopt restrictive overlay zones for protection of natural and/or cultural resources.**

For example, create watershed and aquifer protection, and/or wetland zones.

- **Adopt overlays that allow flexible development options.**

For example, consider Mixed Use, Planned Unit Residential, Open Space Residential (Cluster), Transfer of Development Rights.

- **Refine your administrative regulations in light of your long range growth management objectives.**

For example, update your subdivision regulations, health regulations, capital improvements plan. Work out a development review manual that helps coordinate the efforts of local officials.

On-going Management and Enforcement

The process that developed your Comprehensive Growth Management Plan, and that developed support for it, will have laid the groundwork for its implementation through on-going, coordinated management and enforcement.

- There will be a clear statement of the policies and overall goals that are to guide daily decisions.
- Procedures for obtaining needed information, and for circulating that information, will be detailed in your Zoning, Subdivision Regulations, and Development Review Manual.
- Inconsistencies and ambiguities in your regulations will have been corrected.
- If enough residents understand and support the Plan's action recommendations, it will be easier to gain the votes necessary for budget items such as increased staffing to administer and enforce your regulations.

Just as your community has numerous growth planning allies, you have numerous growth management allies.

- Numerous state level agencies and associations offer training sessions and materials to increase the technical expertise of your community's citizen volunteer officials and employees.
- There are sources of technical assistance to help solve special problems. (See, for example, page 12 and the Appendix.)
- You can share support services with neighboring communities. (Consider, for example, the Incentive Aid Program.)

When all is said and done, the key ingredient to on-going implementation of your community's growth management plan is a group of concerned citizens who share a vision of what your community can be, and who step forward when needed to support the process of local governance.

The key to growth management planning and growth management administration for your community is you.

REACHING OUTSIDE THE PUBLIC SECTOR

In many instances private, non profit, and/or quasi public entities are more able than municipalities to accomplish needed development and preservation.

STEP ONE: CHANGE FROM AN ADVERSARIAL TO A COLLABORATIVE RELATIONSHIP BETWEEN OFFICIALS AND PRIVATE LAND OWNERS AND DEVELOPERS.

Traditionally, land use regulations serve to set the stage for development and conservation. What actually happens on a parcel results from the land owner's decisions, which are made within the limits set by state and local regulations.

Even after the adoption of new zoning options such as Open Space Residential, the final decision about what happens on a parcel still rests with the owner. If he chooses to develop or conserve land by exercising new options for flexible development, he will negotiate with Town officials during the Special Permit process, and officials will have more influence over the final decisions regarding the disposition of a parcel of land. The more cooperative the negotiation process and the more everyone involved sees mutual benefit in the outcome, the more successful will be the negotiation.

If your community's alternative development options such as Open Space Residential or Transfer of Development Rights are more attractive than, for example, traditional subdivision and your Special Permit process is efficient and fair, your community can benefit greatly.

- Your community will "tap" the flow of development that will occur anyway in order to satisfy local needs and priorities such as breadth of housing choice, conservation of open space, development of recreation facilities, or whatever other items are detailed in your Special Permit criteria.
- Open space can be preserved without the Town having to buy that land with public money. Open space can be preserved as part of a privately funded development package.

Private land owners are more likely to choose flexible development options, and the local community is more likely to gain from the use of those options, if the Special Permit process is truly a negotiation rather than a confrontation. If local landowners and people in the development business were represented on your Advisory Committee to the Comprehensive Planning Project, and if they were active in shaping the resulting regulations, then you should have the basic elements in place for a successful negotiation:

- Workable options for development that are attractive to the landowner and to the development investor, and
- Clear Special Permit criteria which safeguard the interests of the community and achieve important benefits for the community.

Remember that the Commonwealth of Massachusetts can be a supportive third member of the negotiation. Focused assistance and/or funding from the State can provide a crucial missing ingredient. Consider, too, the benefits of becoming a member community of the Massachusetts Housing Partnership.

STEP TWO: CONSIDER THE ROLE THAT A TRUST OR FOUNDATION MIGHT PLAY IN YOUR COMMUNITY.

Some visions or objectives that emerged during the comprehensive planning process may well lie beyond Town Hall's sphere or capacity. There are other entities on the scene whose efforts complement what local government can do.

Think of Trusts, Foundations, and other non-profit or quasi-public entities as compatible fellow travelers whose objectives complement yours. In the development and conservation business, they have capabilities that most local governments do not.

- They have many ways to raise and hold money.
- They can make decisions quickly.
- They can respond quickly, for example when a parcel of land comes on the market.
- They can be skilled at owning, maintaining, and disposing of land within the context of the business and financial world.

Examples:

In Greenfield the Community Land Trust achieves affordable housing through buying properties, developing housing on them, and keeping that housing out of the speculation market through long term leases and/or buyback agreements with residents. Concerned public interest groups can help address the pressing need for affordable homes by contributing or loaning their funds for use by the Trust's skilled financial management.

In Lincoln the Land Foundation buys and holds land until a developer can be found who will use a designated development option to build what needs to be built, and conserve what needs to be conserved.

On Nantucket the Land Council provides scientific back up to Town boards who are reviewing development proposals.

Important aspects of land use, land development, and land conservation lie outside the sphere of what local government can do legally, or can do efficiently. Consider how private or quasi-public entities can fill out your local growth management team. Remember that many times the people who form the Board of Directors of Trusts and Foundations are the people who work for the Town's growth management.

By changing the hat you are wearing, you can acquire a new set of tools to put to work for your community's future.

APPENDIX

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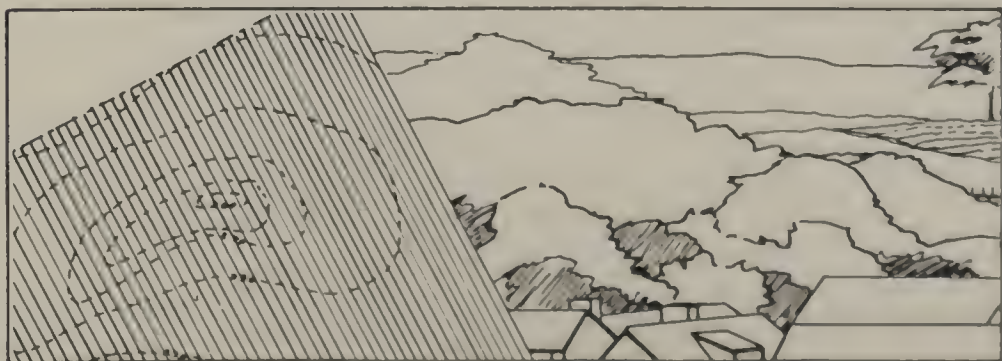
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LAND TOOLS & TECHNIQUES

For Successfully Managing
Growth & Development



LAND TOOLS AND TECHNIQUES

For Successfully Managing Growth and Development

Prepared by

Pioneer Valley Planning Commission
26 Central Street
West Springfield, MA 01089

May 1988

The preparation of this report was funded by a grant from the
Massachusetts Executive Office of Communities and Development.

Acknowledgements

The Pioneer Valley Planning Commission gratefully acknowledges the financial support provided by the Massachusetts Executive Office of Communities and Development for this project. Special thanks are due to Kathleen Bartolini, Sixto Escobar, and Rebecca Lubin of EOCD, Katherine Preston of the Center for Rural Massachusetts, and Robert Ritchie, Esq. who reviewed drafts of this report and provided helpful comments. PVPC would also like to acknowledge the many communities and organizations which provided zoning bylaws used in the development of the model bylaws section of this report. In particular, Bob Mitchell, Teri Anderson, and Randall Arendt were helpful in this regard.

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LAND TOOLS AND TECHNIQUES

For Successfully Managing Growth and Development

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I. INTRODUCTION



I. INTRODUCTION

Responding to Growth Pressures

Communities across Massachusetts have been confronted with unprecedented levels of growth. Development pressures have threatened the overall quality of life in communities by changing community character, reducing open space and farmland, clogging roads and highways, overtaxing infrastructure and public services, raising housing prices, and adversely affecting environmental quality.

The complex web of growth-related problems is one which many communities, particularly smaller or rural towns, are not well-equipped to unravel. These communities have neither adequate planning tools nor staff capacity to address contemporary growth management issues in an informed, objective, and creative manner.

Assistance for Small, Rural Communities

If you are a municipal official (e.g., Planning Board or Board of Selectmen member) in a smaller or rural community, without the benefit of full-time professional planning staff, this handbook has been written with you in mind. Land Tools and Techniques is an effort to assist community officials in taking a "hands on" approach to improving their town's growth management capabilities.

It is our hope that municipal officials from larger or more urbanized cities and towns will also find Land Tools and Techniques useful. When reading the descriptions and model bylaws in this handbook, city officials should substitute "ordinance" for "bylaw" and "City Council vote" for "Town Meeting vote". In all other respects, the material in this report is fully applicable to cities and larger towns as well.

Planning Process

Before embarking on an effort to select the appropriate growth management tool for your community, it is essential to follow a complete planning process. This process should include: forming a growth management committee; setting community goals; analyzing growth-related problems; mapping land characteristics and resources; and, finally, using this framework to design a growth management strategy. Land Tools and Techniques has been designed to be used hand-in-hand with part one of this workbook, What's Right For You?, which contains a detailed description of the planning process.

Big Myths and Mistakes

Unfortunately, some of the severe growth restrictions that communities are choosing to employ in response to growth pressures are having counter-productive results. For example, communities commonly respond to growth by adopting large lot zoning, which has had the result of encouraging sprawl, loss of community character, and expensive municipal infrastructure and service costs.

Similarly, building moratoria have been viewed as a growth control panacea in some communities. While necessary in some cases to prevent overstressed public infrastructure or services, moratoria have frequently driven up the cost of land and housing which has further exacerbated the Commonwealth's affordable housing crisis. In addition, development pressures are stored up to be released in a flood when the moratorium expires, or are shunted off to neighboring communities.

Another common practice in communities without professional planning assistance is to simply "borrow" a zoning bylaw from another community. At best, this practice usually results in bylaws which are not tailored to meet the community's specific needs. At worst, the bylaw may be rejected by the State Attorney General or subjected to legal challenges.

Appropriate Tools to Meet Community Goals

Planning to effectively manage growth and development requires great care to ensure that the tools employed will help to meet community goals and avoid the pitfalls described previously. The purpose of Land Tools and Techniques is to provide community officials with a comprehensive menu of contemporary strategies which address growth and development goals common to many Massachusetts communities. These goals include:

1. Encouraging a Variety of Housing Types
2. Preserving Community Character and Open Space
3. Protecting Natural Resources and Environmental Quality
4. Promoting Quality Commercial and Industrial Development

In order to provide communities with the resources necessary to meet these goals, a series of options is described, ranging from zoning and subdivision regulations to land acquisition techniques and affordable housing programs. Each of the strategies presented has the common characteristics of being:

- readily understood by volunteer boards
- effective and innovative in addressing contemporary growth problems
- enforceable and affordable in rural or suburban communities

Land Tools and Techniques encourages community officials to carefully consider the strategies most appropriate to meet their goals. Once a course of action has been charted, communities can work to tailor the model bylaws included herein to meet their specific needs.

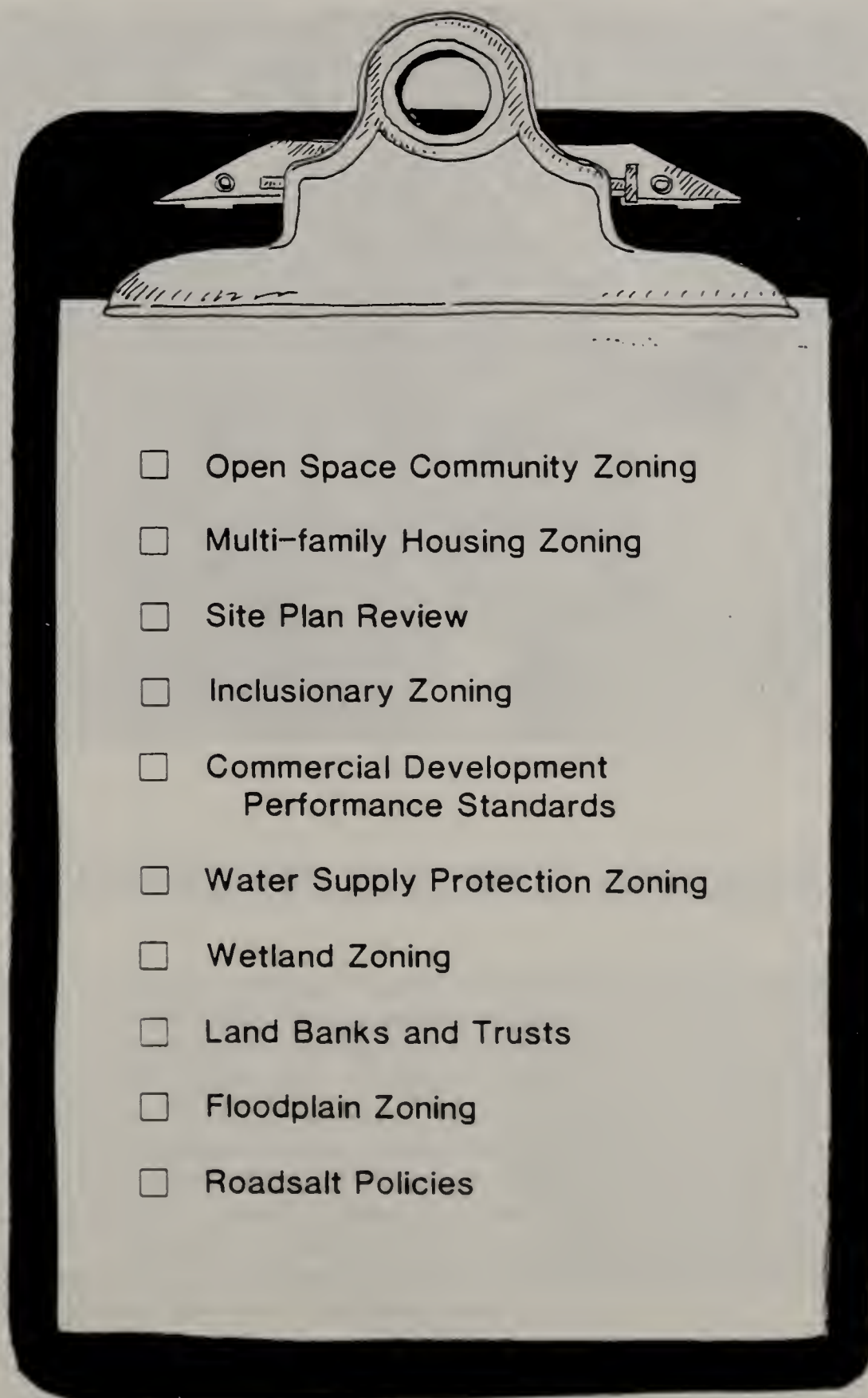
Where To Get Technical Assistance

If you have questions regarding how to fit the tools and techniques described in this report to your community's needs, there are several sources of technical assistance available to you. First, you can call your Regional Planning Agency (see page 43 of What's Right For You? for a complete list of regional planning agencies). Or, you can call the Office of Municipal Development at EOCD (see page 18 of What's Right For You?).

Getting Legal Advice

The descriptions and model bylaws contained herein deal with land tools and techniques which, in some cases have been tested and have successfully withstood legal challenges in Massachusetts, and in other cases are new and relatively untried techniques. It is recommended that communities seek advice from legal counsel before adopting any of these tools or techniques.

II. MENU OF TOOLS AND TECHNIQUES FOR ACHIEVING COMMUNITY GOALS



- ☐ Open Space Community Zoning
- ☐ Multi-family Housing Zoning
- ☐ Site Plan Review
- ☐ Inclusionary Zoning
- ☐ Commercial Development
Performance Standards
- ☐ Water Supply Protection Zoning
- ☐ Wetland Zoning
- ☐ Land Banks and Trusts
- ☐ Floodplain Zoning
- ☐ Roadsalt Policies

II. MENU OF TOOLS AND TECHNIQUES FOR ACHIEVING COMMUNITY GOALS



A. GOAL: ENCOURAGE A VARIETY OF HOUSING TYPES

Many local zoning bylaws in Massachusetts communities allow residential development only in the form of single family homes on frontage lots of 20,000 to 40,000 square feet. Such zoning ultimately tends to encourage uniform rows of single family homes lining streets throughout the community. Increased flexibility in zoning controls can allow the siting of single family homes in a more creative manner which is sensitive to natural landscape features, preserves open space, and provides a more visually attractive development. And while there is clearly a need for single family homes, many communities are finding a need to create a wider range of housing types to serve their elderly, first-time homebuyers, empty-nesters and other socioeconomic groups. The approaches described in the following section provide flexible development alternatives for achieving a greater diversity of housing types.



OPEN SPACE COMMUNITY ZONING

Tool or Technique:

A residential zoning bylaw which uses a special permit and site plan review process to allow clustering of single family homes in return for protection of significant adjacent areas of open space.

Method of Adoption:

Adoption requires a two-thirds majority vote of Town Meeting to amend the zoning bylaw. The bylaw must specify the zoning districts in which open space communities are allowed by Special Permit.

Goals:

1. To permanently preserve open space farmlands and natural landscape features.
2. To promote more efficient use of land, and allow for greater flexibility and creativity in the design of residential subdivisions.
3. To maintain the traditional New England rural character and land use pattern in which small villages contrast with open space and farmlands.
4. To facilitate the construction and maintenance of streets, utilities, and public services in a more economical and efficient manner.

Problem Addressed

Many communities are experiencing a loss of open space and rural character as a result of extensive development of single family homes along available frontage lots. The intent of an open space community bylaw is to maintain rural character; to preserve open space for conservation and recreation; to introduce variety and choice into residential development; to meet housing needs; and to facilitate economical and efficient use of public services while encouraging well-designed developments with accessory recreational facilities.

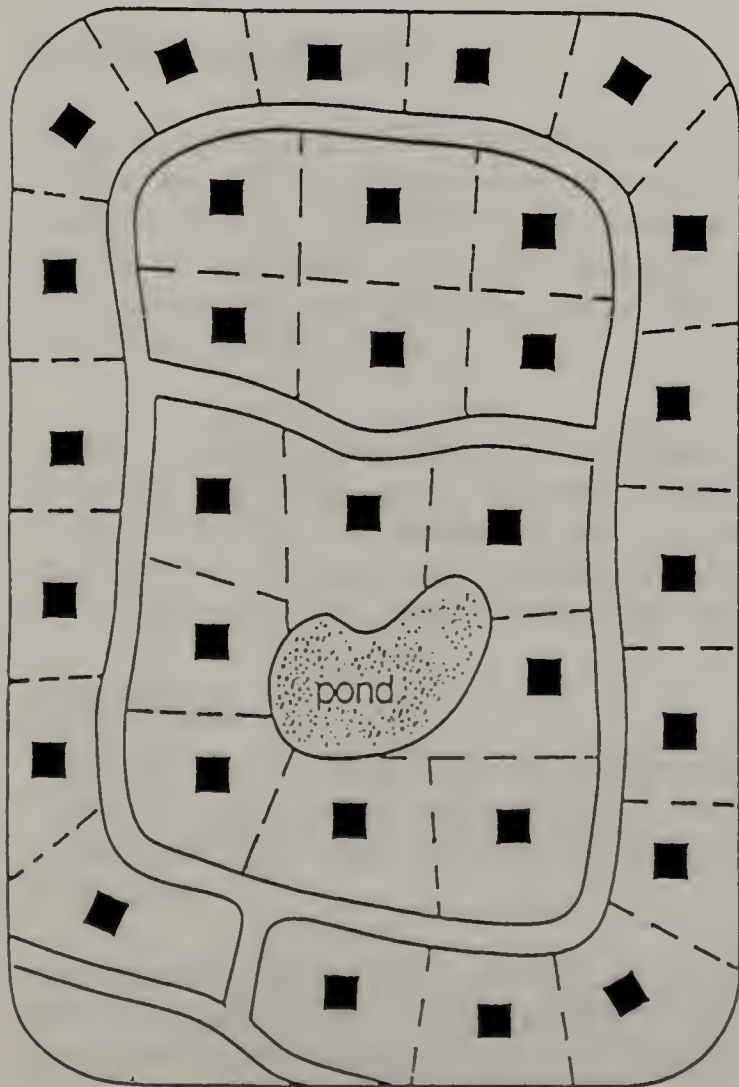
Approach

Open space or cluster development replicates the traditional New England village setting. New Englanders originally brought the concept of the village cluster with them from England, where new development is still being built this way today. There are many reasons why cluster development has continued to be used through the years including efficiency in land use and preservation of natural features. More efficient use of land in a cluster development results in lower costs of development, roads, and infrastructure and lower municipal costs for providing maintenance and services. Clustering allows the preservation of natural features by minimizing the impact of development on open spaces, scenic waterways, trees, slopes, and wildlife areas.

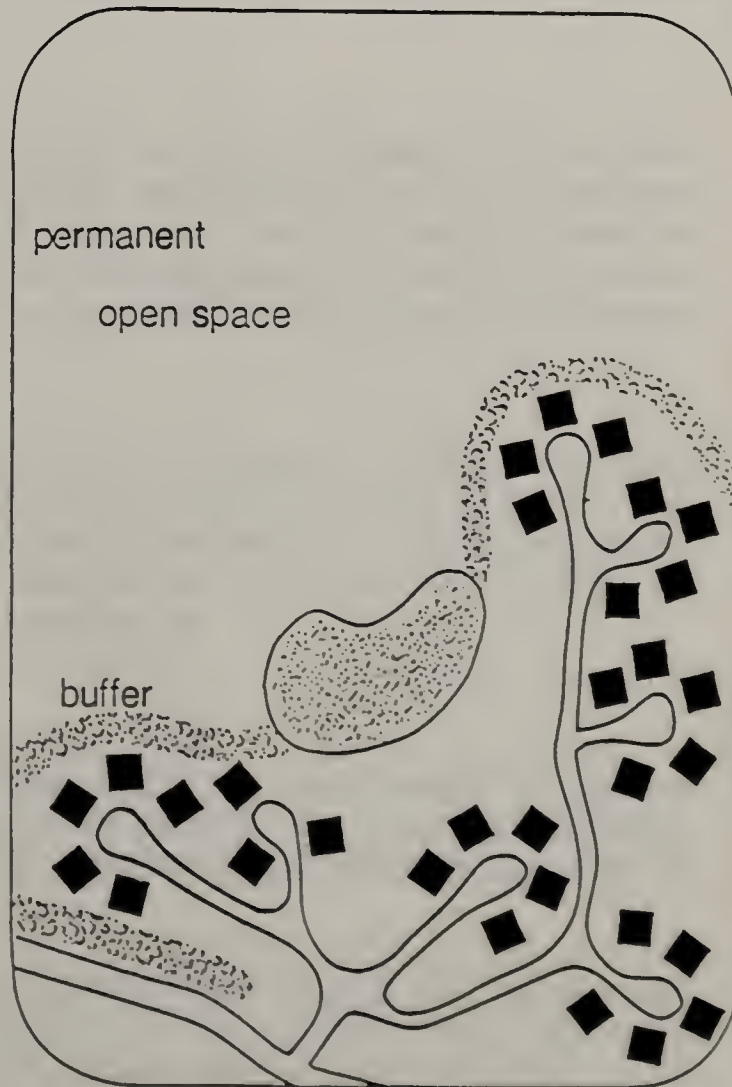
How It Works

Most open space community or cluster zoning bylaws in Massachusetts allow development of single family houses on lots significantly smaller than those normally allowed in the zoning district (e.g. 30% to 50% of the existing lot size requirement). However, in most bylaws, the developer is not allowed to construct a greater total number of houses than would normally be allowed for a given tract of land. The developer is simply given a "density bonus" on a portion of his land parcel, in return for preserving the remainder of the tract as permanent open space.

Standard Subdivision Development



Open Space Community Development

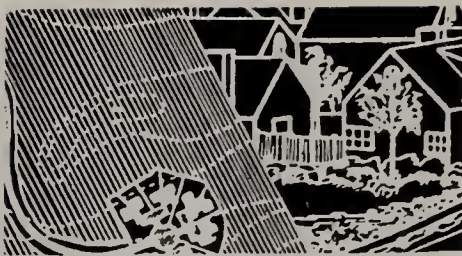


In an open space community, all land within the parcel boundaries that is not designated for homes, roads, or other development is conveyed to the community or a non-profit organization to be permanently preserved as open space.

For open space communities, it is important to adopt regulations which ensure the proper, long-term maintenance of common space areas, utilities and other shared facilities. Zoning standards should address the following issues:

- minimizing the size and environmental impact of communal septic systems (if no public sewer system exists);
- criteria for determining the allowable number of dwelling units and required amount of open space;
- lands which qualify to meet open space requirements;
- ownership and use of common open space;
- establishment of a homeowner's association to be responsible for the long-term maintenance of common open space, communal septic systems (or sewer lines), water systems, and other facilities.

An open space/cluster bylaw allows for more flexible, creative developments. It can benefit both the community, by preserving open space and promoting more attractive developments, and can benefit the developer by reducing development costs.



MULTI-FAMILY RESIDENTIAL ZONING

Tool or Technique:

A residential zoning bylaw which permits multi-family dwelling units through a special permit and site plan review process.

Method of Adoption:

Adoption requires a two-thirds majority vote of Town Meeting to amend the zoning bylaw. This bylaw must specify the zoning districts in which multi-family dwellings are allowed by Special Permit.

Goals:

1. To meet the community's needs to provide affordable housing for all residents.
2. To promote diversity and choice in the residential housing market.
3. To allow for increased residential density on appropriate land parcels, while maintaining existing community character.

Problem Addressed

In spite of the mid-1980's building boom, the dream of home ownership is still a distant reality for many Massachusetts residents. Rapidly escalating costs for lands and housing have widened the gap between home prices and the purchasing power of middle or low-income persons. In order to provide housing opportunities for persons of all income and age groups, communities need to increase zoning flexibility to allow a variety of housing types.

Moreover, Massachusetts communities must comply with Chapter 774, also known as the "Anti-Snob Zoning Law." Chapter 774 requires that a community must provide a fair share of low and moderate income housing, or must ensure that its local regulations do not hamper construction of such housing. Therefore, the adoption of a multi-family bylaw can be a first step in accessible housing compliance.

Approach

Allowing the development of apartments, condominiums, or townhouses by Special Permit on appropriate sites throughout the community provides the flexibility necessary to promote affordable housing construction while simultaneously protecting community character.

By adopting multi-family zoning as an overlay district, communities can allow multi-family residences in appropriate zoning districts on sites which meet stringent environmental siting criteria. This approach allows multi-family housing to be

incorporated into the fabric of a community rather than being relegated to an established "multi-family district."

How It Works

Using a combined special and site plan review process, communities can establish performance standards which must be met in siting a multi-family development in order to reduce its impact on the surrounding neighborhoods and on the environment.

In establishing special permit criteria and site plan review standards, communities can ensure that multi-family developments have the following features or provisions in order to minimize community impact and maintain community character:

- adequate and safe roadway access;
- sufficient parking for residents and visitors;
- landscaped buffer areas between buildings and adjacent properties;
- preserved open space for passive recreation;
- sewage disposal systems which will not adversely affect groundwater;
- adequate water supply and utilities;
- architectural style compatible with town and neighborhood character;
- flexibility in determining a minimum lot size sufficient to meet existing site conditions and sewage disposal needs.



INCLUSIONARY ZONING FOR AFFORDABLE HOUSING

Tool or Technique:

Inclusionary zoning offers incentives, usually in the form of a density bonus, to promote the construction of affordable housing.

Method of Adoption:

Adoption requires a two-thirds majority vote of Town Meeting to amend the zoning bylaw.

Goals:

1. To promote the private market construction of affordable housing for low and moderate income residents.
2. To encourage greater diversity of housing opportunities in order to meet the needs of a changing population with respect to age, household size, and income.

Problem Addressed

As housing costs increase faster than income levels, many people are finding themselves priced out of the traditional market-rate home. The size of the average household has decreased in recent years creating the need for more units with a diversity of types and sizes. Many of the federal subsidies which use to aid in the construction of lower and middle income units are no longer available.

Approach

Because of recent changes in housing needs and monies available, some communities have developed strategies that use a combination of local incentives and state resources to encourage private developers to contribute to the production of more middle income housing. Several metropolitan Boston communities, notably Lexington, Newton, and Reading, have experimented with inclusionary zoning with modest success.

How It Works

Typically, inclusionary housing bylaws seek to promote private market development of affordable housing by offering developers residential density bonuses in return for which the developer must set aside a percentage of housing units in the development for low and moderate income residents. In existing inclusionary bylaws, the percentage of affordable units required generally ranges from 10 to 25% of the total units being developed.

As alternatives, communities may allow developers to construct some of the required affordable units off-site, or may allow the developer to make a cash payment to the community equal to the value of the required units. The community in turn assumes the responsibility of developing the affordable housing units.

The experiences of Boston-area communities indicate that several factors must be in place to make inclusionary zoning work in a community:

1. Housing market forces must be sufficiently strong to make a mixed market rate and low/moderate income housing development economically attractive to private developers;
2. Community residents must be willing to accept increased residential density as a trade-off for affordable housing: on the other hand, communities must be careful not to forfeit community values. The environmental impact and the cost to the community must be weighed against the need to compensate the developer. Bonuses should not contradict overall planning objectives.
3. Density bonuses are easier to grant when there is public infrastructure, particularly sewer and water lines, in place to allow for increased density without environmental degradation;
4. Professional housing staff should be available or be hired by the community to administer the complex inclusionary housing program from the application stage to the long-term monitoring of affordability.

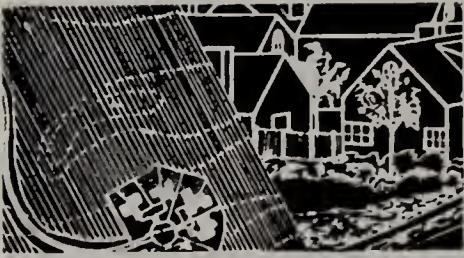
Note: Prior to adoptions of any inclusionary zoning bylaw, careful review by town legal counsel is necessary to ensure compliance with the still uncertain "regulatory takings". State and federal constitutional law prohibit taking of property without compensation. Land use regulations which deprive property owners of all uses of property have been generally seen as "regulatory takings".

Complementary State and Federal Programs

Inclusionary housing programs must be financially feasible in the private marketplace. For example, if the requirements are too strict, the program will not generate enough units to make it worthwhile. In designing an inclusionary program, communities should bear in mind that there are state and federal subsidies available to share in private development costs. These programs include:

- EOCD Chapter 667/705 State-Aided Elderly and Family Housing Programs
- HUD/EOCD Section 8 Rental Assistance and Housing Rehabilitation Program
- EOCD Chapter 707 Rental Assistance Program - Provides rental subsidies to low income households to enable them to live in the private rental market.
- EOCD Massachusetts Housing Partnership Homeownership Opportunity Program - Financial and technical assistance to aid local housing partnerships with private market affordable housing.

A local inclusionary housing program cannot provide for all the community's affordable housing needs but, as part of a comprehensive effort it will increase housing choices and alternatives available to middle-income households.



ELDERLY AND HANDICAPPED CONGREGATE RESIDENTIAL ZONING

Tool or Technique:

A residential zoning overlay district which permits congregate elderly or handicapped dwelling units through a special permit and site plan review process.

Method of Adoption:

Adoption requires a two-thirds majority vote of Town Meeting to amend the zoning bylaw.

Goals:

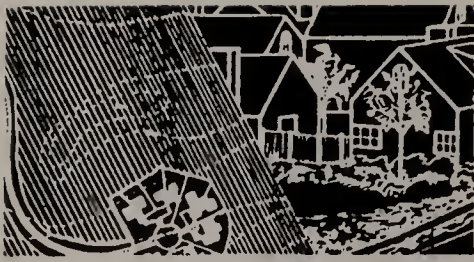
1. To meet the unique housing and care needs of elderly residents.
2. To provide available housing options within the community so that elderly persons are not forced to relocate in order to meet their housing needs.

Problem Addressed

Elderly and handicapped persons often have specialized housing or care needs which can best be met in a congregate housing environment. Congregate housing can provide for shared facilities such as kitchen facilities or special care facilities.

Approach

The concerns in developing special permit criteria and site plan review standards for elderly and handicapped congregate housing are essentially identical to the concerns described in the previous section on "Multi-family Residential Zoning."



ACCESSORY APARTMENT ZONING

Tool or Technique:

A zoning bylaw which permits the addition of a second unit to an existing residential dwelling.

Method of Adoption:

Adoption requires a two-thirds majority vote of Town Meeting to amend the zoning bylaw.

Goals:

1. Provide opportunities for older home-owners that can no longer physically and/or financially maintain single-family homes to remain in homes they might otherwise be forced to leave.
2. Make rental housing units available to moderate-income households who might otherwise have difficulty finding homes within the town.
3. Provide a variety of housing types to meet the needs of its residents.
4. Protect stability, property values, and single-family residential character of the neighborhood.
5. Legalize existing conversions to encourage code compliance.

Problem Addressed

Despite the increase in residential development, many households are finding it difficult to locate appropriate housing. Recent financial activity in the development industry has encouraged construction of single-family structures as the primary housing type. As a result, fewer rental units are being constructed. In addition, the household formations are changing and households are becoming smaller. More households are composed of older couples, single persons, married couples without children, and single parents with children. The accessory apartment bylaw can assist a community in meeting its residents' changing household needs.

How It Works

An accessory apartment is a separate dwelling unit located on the lot of an already existing single-family house. Sometimes referred to as a "Mother-in-law" apartment or "conversion," this unit is typically smaller in size and appearance than the main unit and includes a bathroom and kitchen. Although it shares the same lot, an accessory apartment may or may not be attached to the main unit. For example, a detached garage may be converted or an apartment may be added in the basement of a single-family home.

Accessory apartments can be permitted by right or by special permit providing certain standards and criteria are met. These conditions vary based on a community's needs and may include: only one accessory apartment per structure; establishment of a minimum lot area for eligibility; service by public water and sewer facilities; maximum square footage for an accessory apartment or the area of accessory apartment as a percentage of the gross floor area; limitation on the number of bedrooms permitted; any new entrances on the side or back of the house; and at least three off-street parking spaces available for use by the owner and tenant.



B. GOAL: PRESERVE COMMUNITY CHARACTER AND OPEN SPACE

Communities in Massachusetts are fortunate to have been endowed with a beautiful and rich landscape fabric woven of historic homes and buildings on town commons, tilled fields and pastures, and scenic vistas of woods, lakes and streams. These components together make up what is known as "community character." Community character increases property values and overall quality of life, a major reason why people choose to live in Massachusetts.

In the 1980s, community character and open space are in jeopardy, due to the rapid growth occurring in Massachusetts communities. When residential and commercial development is uncontrolled and unattractive it threatens to forever change rural and historic community qualities and eliminate open space and scenic areas which make the Massachusetts landscape unique.

For many communities, farms and lush agricultural fields are a key component of community character. Working farms provide local jobs, fresh food, and a link to Massachusetts' heritage. However, increasing land prices and burgeoning housing construction threaten to push farmers off the land.

Communities with good planning and innovative programs can act to protect rural and historic character and to preserve a critical mass of farms necessary to maintain an intact, working landscape. The following sections describe strategies to help achieve these goals, while allowing for needed housing and other development.



AGRICULTURAL PRESERVATION ZONING

Tool or Technique:

Agricultural Preservation Districts can be established as overlay zones to preserve prime farmlands, and to minimize adverse development impacts and conflicts.

Method of Adoption:

As an amendment to the zoning bylaw, adoption requires a two-thirds majority vote of Town Meeting. Zoning district boundaries should be delineated on an overlay zoning map.

Goals:

1. To protect prime agricultural lands for future food protection;
2. To promote the practice of farming, and minimize conflicts with other land uses;
3. To preserve historic, scenic, open space, and other farm-related values which help to define the community's character;
4. To allow landowners a reasonable return on the value of their holdings while preserving the most important farmlands for future agricultural use.

Problem Addressed

Prime farmland is also prime land for development. Throughout Massachusetts, important farmlands have been permanently lost beneath subdivisions and industrial parks. Massachusetts has several innovative farmland retention programs, such as the Agricultural Preservation Restriction (APR) Program, which have been successful in preserving farmlands. However, it is unlikely that the APR Program will ever be able to purchase all of Massachusetts' prime farmland. In order to be successful, these State programs must be complemented by effective local land use controls.

Approach

While exclusive agricultural zoning districts or extremely large-lot requirements have been adopted elsewhere in the United States to preserve farmland, these techniques are not likely to be useful or held legally valid in Massachusetts. The approach recommended here would allow limited residential development in a tightly controlled manner, but would at the same time ensure the permanent retention of the most productive farmlands.

How it Works

Agricultural zoning can be designed to require mandatory clustering of all large-scale residential developments on the portions of the parcel with soils least suitable for agriculture. The permitted uses in the district are limited to farming, farm-related activities, and residential development on lots with frontage on an existing public way (Approval Not Required development). All residential subdivisions that require approval under M.G.L. Chapter 41 must obtain a Special Permit/Site Plan Approval and follow special guidelines:

1. Structures must be clustered in order to preserve the majority of the site's most productive farmlands as open space;
2. Remaining open farmlands must be permanently preserved by deed restriction;
3. Landscaped and fenced buffer areas must be created to separate residential and agricultural areas.

Case Example:

The Towns of Granby, Hadley, and Amherst in western Massachusetts have been working closely with local farmers to design innovative farmland preservation zoning bylaws. Granby was the first community in Massachusetts to adopt such an ordinance. The Granby bylaw requires mandatory clustering of large-scale developments on no more than 50% of the total area of the farm parcel. The total number of dwelling units which can be constructed is based upon one unit per acre, after wetlands and lands unsuitable for on-site sewage disposal have been subtracted. The remaining prime farmland must be permanently preserved by deed restriction. Granby is also working with farmers within the agricultural zoning district to promote participation in State farmland preservation programs.



AGRICULTURAL INCENTIVE DISTRICTS

Tool or Technique:

Massachusetts' Right to Farm Law authorizes municipalities to establish Agricultural Incentive Areas for the purpose of protecting and promoting farming as the dominant and preferred land use within these districts.

Method of Adoption:

In order to establish an Incentive Area, a local committee comprised of farmers and town officials must develop a plan which delineates a proposed district and evaluates the characteristics of the farms within it. The district is made official by the approval of the Department of Food and Agriculture and a two-thirds majority vote of Town Meeting/City Council. The Incentive Area must be consistent with M.G.L. Chapter 40L, Agricultural Incentive Areas, otherwise known as the "Right to Farm Law."

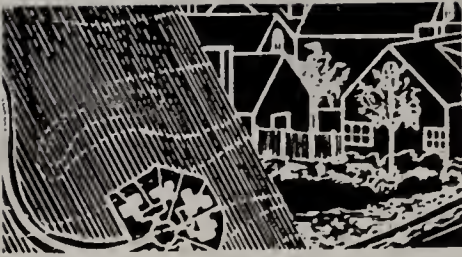
Goals:

Agricultural Incentive Areas are intended to protect farmers from development pressures, nuisance complaints and conflicts associated with growing residential areas.

How It Works

Participation in an Agricultural Incentive Area is completely voluntary, and farmers who join are eligible for certain benefits in return for their agreement to place some minor restrictions on the sale of their property. Benefits for participating farmers include: assessment under Chapter 61A for reduced property taxes; exemption from special or betterment assessment while in farming; priority eligibility for Agricultural Preservation Restrictions; and increased protection from nuisance suits. (Under M.G.L. Chapter 11, Section 125A, farmers are protected only against nuisance suits involving odors. The Right to Farm Law protects them from suits resulting from any normal farm operation.) However, no land within the district may be sold without notifying the town and the Department of Food and Agriculture. The Town and DFA have a first refusal option to purchase the property at the asking price.

Agricultural Districting programs are generally popular with farmers in other states. Districts seem to instill in farmers an enhanced sense of community by being part of a cooperative effort to maintain farming as a way of life. The establishment of agricultural districts can also signify the non-farming community's recognition of the importance of farming and farmlands. It makes the statement that "we want to keep a viable farm community in our town."



LOCAL CONTRIBUTIONS TOWARD AGRICULTURAL PRESERVATION RESTRICTIONS

Tool or Technique:

A municipal fund established to contribute toward the purchase of Agricultural Preservation Restrictions in order to preserve important farmlands.

Method of Adoption:

Establishment of a municipal farmland preservation fund requires a majority vote of Town Meeting.

Goal:

1. To permanently preserve prime agricultural lands which enhance the overall quality of life in the community.

Problem Addressed

The loss of farmlands to housing, commercial, or industrial development is the irretrievable destruction of a precious natural resource, lifeway, and source of employment of critical concern to many Massachusetts communities. Because prime farmlands are also commonly prime development lands, farmers are often under great economic pressure to sell their lands for development.

Approach

The Massachusetts Department of Food and Agriculture's (DFA) Agricultural Preservation Restriction (APR) Program offers farmers an alternative to selling their land for development. The APR Program purchases the "development rights" to prime farmland. The farmer retains ownership of the land with a permanent deed restriction preventing future development, and receives payment for the value of the development rights.

Farmers must submit an application to DFA for the purchase of their land's development rights under the APR Program. Due to great demand for limited APR funds, the program is highly competitive. Communities can increase the chances of a local farmer being a successful APR applicant by providing "local match" funds toward of an APR.

How It Works

Communities can establish a local farmland preservation fund, administered by the Conservation Commission, to pay for a percentage (e.g. 10%) or an established amount (e.g. \$10,000) toward each APR purchase. A local contribution enables the community to become a co-holder, with the DFA, of the deed restriction for the preserved farm parcel(s).



FLEXIBLE ZONING

Tool or Technique:

Flexible zoning permits variation in lot size and frontage within a development, while maintaining the overall density of the development according to established standards.

Method of Adoption:

As an amendment to the zoning bylaw, adoption requires a two-thirds majority vote of Town Meeting.

Goals:

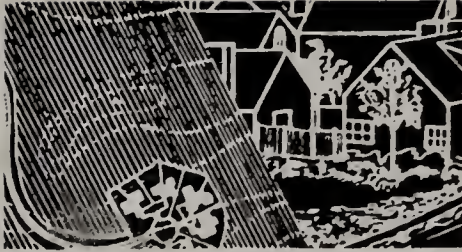
1. To promote greater harmony between development and natural landscape qualities.
2. To allow visual and aesthetic variety in residential land use patterns.
3. To protect important natural resources, such as wildlife habitat, watercourses or unique landscape features without public expense.

Approach

There are several alternative zoning techniques, including cluster and planned unit residential development, which can allow greater flexibility in site planning, and avoid the traditional "cookie-cutter" lot subdivision. Cluster, which requires a dedication of open space, and PURD, which permits a mix of residential types, are discussed elsewhere in this handbook. Flexible zoning is a technique to allow variation in single-family residential lots without a required dedication of open space or mix of uses.

How It Works

Flexible zoning bylaws have been adopted in towns such as Sunderland and Groton. These bylaws permit by right creation of individual lots which vary from the established minimum frontage and lot size requirements, provided that the total area and frontage for all new lots created meet the established standards. The total number of lots should not exceed the number which could reasonably be expected to be developed on that parcel under a conventional plan in full conformance with zoning, subdivision regulations, and health codes.



MAJOR RESIDENTIAL DEVELOPMENT CONTROLS

Tool or Technique:

Communities can adopt regulations to control the impact of large residential developments, while providing incentives for affordable housing and open space preservation within those developments.

Method of Adoption:

As an amendment to the zoning bylaw, adoption requires a two-thirds majority vote of Town Meeting.

Goals:

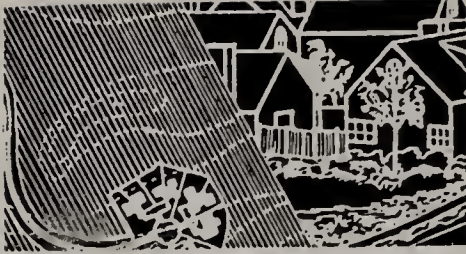
1. To moderate the affects of large residential developments on the community and its ability to provide public services;
2. To protect the visual character and environmental resources of the community;
3. To limit the rate of new residential development consistent with the town's historic development rate;
4. To help meet the community's need for affordability and variety in housing.

Approach

The Major Residential Development Control approach combines elements from several other zoning techniques (including growth phasing, inclusionary housing policy, flexible zoning and transfer of development rights) into a single regulatory function. This approach is administratively more complex than other techniques, but provides opportunities for achieving a combination of community objectives.

How It Works

Major Residential Development controls have been adopted in Sunderland and several other Massachusetts communities. These regulations provide that any development creating more than six lots within a year require a special permit. Individual lots within such developments are allowed flexibility in meeting minimum lot size and frontage requirements, as long as the total number of lots does not exceed what is normally allowed. Density bonuses are provided for developments which provide affordable housing or preserve important open spaces. Additional density bonuses may be gained through the protection of lands designated by the community as "critical resource areas." These critical resource areas are lands such as farmlands or aquifer areas important to the environmental quality of the community. If a developer purchases critical resource lands to be protected as open space, they can be attached to a development application, even if they are non-contiguous, in order to provide a density bonus on the buildable portion of the land. This is essentially a transfer of development rights provision.



PHASED GROWTH CONTROLS

Tool or Technique:

A phased growth bylaw regulates the number of building permits issued annually (or during a designated time period);

Method of Adoption:

Building permit limits may be adopted as an amendment to the municipal zoning ordinance via a two-thirds majority vote of Town Meeting.

Goals:

1. To encourage a steady, manageable growth rate in the community and reduce extreme fluctuations in the growth rate;
2. To relate the timing of residential development to the community's ability to provide public services to such development;
3. To protect the community's character, and the health, safety, welfare, and convenience of its residents.

Problem Addressed

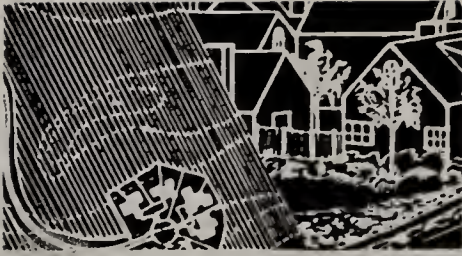
During the mid-1980's growth and development boom in Massachusetts, many rural or suburban communities have experienced exponential increases in residential growth rates. In many cases, development rates have outstripped the ability of communities to provide adequate public schools, water supplies, sewerage treatment, fire and police protection, and other public services. Rapid development rates have precluded adequate planning and have altered the perceived character and quality of life in communities.

Approach

Phased growth bylaws originated, in concept, with such landmark ordinances as those adopted in Petaluma, California and Boulder, Colorado. Ordinances placing annual limits on building permits have successfully withstood court challenges when communities have been able to show that the building permit limits are based upon actual limits to the capacity and rate of expansion of municipal services, such as schools, sewer and water facilities.

How It Works

Phased growth ordinances generally establish a numerical limit on the number of building permits which can be issued per year. There are, however, many methods of determining how the building permits will be allocated. The Town of Amherst's "Phased Growth Bylaw," adopted November 1987 for example, requires that building permits for new subdivisions be phased in over a period of one to five years, with larger subdivisions requiring a larger phase-in period. Developers can modify this phase-in period by earning bonus points for providing affordable housing, open space, aquifer protection, cluster, or planned unit residential development as part of their project. Bonus points allow developers to build more of their units in a shorter period of time.



HISTORIC PRESERVATION BYLAWS

Tool or Technique:

Local Historic Districts can be established to preserve the visual character and setting of village centers, neighborhoods, or clusters of buildings and to minimize the effects of demolition, new construction, or exterior alteration.

Method of Adoption:

Historic District bylaws can be adopted under M.G.L. Chapter 40C, requiring a two-thirds majority approval of Town Meeting/City Council. The bylaw must be derived from the report of a formal Study Committee appointed by the Selectmen or Mayor, which recommends specific boundaries and controls. The membership of the Study Committee should include a representative of the local historical society, a registered architect, and a licensed realtor, in addition to other expertise.

A map delineating the boundaries of the district must be filed with the City or Town Clerk and recorded at the County Registry of Deeds.

Goals:

1. To preserve and protect the distinctive characteristics of buildings and places significant in the history of the Commonwealth and its cities and towns.
2. To maintain and improve the settings of those buildings and places.
3. To encourage the design of new construction to be compatible with existing buildings in the district.
4. To protect against the decrease of land values caused by deterioration, demolition, or inappropriate alteration of significant buildings.

Problem Addressed

Community identity depends partly on a continuing sense of the past. Historic buildings, as a visual reminder of a community's heritage, are an important element of the local character. Well-preserved historic villages and neighborhoods are a source of pride for local residents and a major attraction for visitors. While zoning regulations govern the use of properties within a specific area, local historic districts are designed to control the aesthetics of new and existing buildings. Local historic district controls can be very strict or relatively relaxed, according to the needs of the community.

Approach

Local historic districts are designed to preserve the outward appearance and harmonious exterior relationships of groups of buildings, structures, or sites without changing their ownership or curtailing their use. Historic district controls prevent the intrusion of incongruous structures which would detract from the aesthetic and historical values of the district. They apply only to exterior architectural features that are visible from a public way and may be further limited according to the language of the local bylaw.

How It Works

Historic districts do not constitute a "taking" of property rights, provided that the district designation has been identified in a manner that is neither arbitrary nor capricious. In order to assure that districts are fairly delineated, the local historical commission should complete a comprehensive historic resource survey documenting the architectural and historical significance of buildings, sites, and structures throughout the city or town.

Once the local historic district is established, an Historic District Commission is appointed to oversee the district. Before any construction or demolition permit can be issued within an historic district, the property owner must apply to the Historic District Commission for a certificate of appropriateness, a certificate of non-applicability, or a certificate of hardship with respect to such construction, alteration, or demolition.

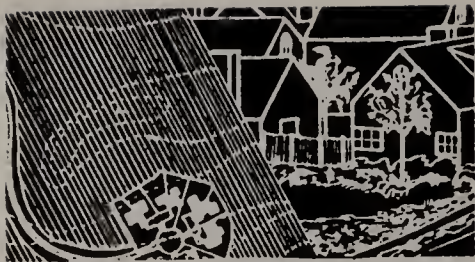
The Historic District Commission bases its judgement on the historic and architectural value and significance of the property, the general design, arrangement, texture, material, and color of the features involved, and the relation of such features to buildings and sites in the surrounding area. In the case of new construction, the Commission considers the appropriateness of the size and shape of the building in relation to the land area on which it is situated and to buildings and structures in the vicinity. In case of a conflict with the state building code, the provisions of the historic district take precedence.

The enabling legislation provides for a review and appeal process. Any violation of the provisions of the historic district bylaw is punishable by a fine.

Case Examples:

The center of Longmeadow, Massachusetts features a long town common flanked by 18th and 19th century residences. A local historic district established in 1973 helps to preserve the scale and character of the area by providing for the review of exterior changes and new construction. New buildings are not required to replicate a specific style, but must maintain visual harmony with existing buildings.

The McKnight district of Springfield, Massachusetts consists of a large neighborhood of detached housing laid out and developed in the 1880s and 1890s. A local historic district established in 1976 has helped to encourage the maintenance and restoration of older homes and preserved the integrity of the area without gentrification.



STRATEGIES FOR PRESERVING OPEN SPACE AND CONSERVATION AREAS

Tool or Technique:

An effective open space conservation program requires a combination of methods merging long-range planning with an opportunistic action approach. Those methods include: outright purchase of land at full or "bargain-sale" prices; establishment of permanent Conservation Restrictions through gift or purchase; exercise of the local first refusal right under Chapter 61A; the judicious use of town and private funds to leverage state assistance; purchases for multiple town purposes (e.g. conservation plus low-income housing, school construction, recreation, and the perpetuation of active agriculture); limited-development purchases; and others.

Method of Adoption:

A multi-faceted local approach to the preservation of open space requires the support of Town Meeting, a willingness to work with local or regional land trusts, the existence of a working open space plan, and the maintenance of a healthy conservation fund.

Goals:

1. To permanently preserve a greenbelt of open lands for aesthetic enjoyment, recreation, wildlife habitat, landscape, and farmland preservation.

Problem Addressed

Development is quickly replacing prime open space throughout Massachusetts. Opportunities to create blocks or greenbelts of local conservation land are fading despite vigorous land preservation activity on the part of Conservation Commission's and land trusts around the state.

Approach

One useful way of focusing local land protection is to treat the municipality as an ecosystem, with a variety of component parts that should be considered together. Land preserved through acquisition, deed restriction, or other methods should be representative of each major land or habitat type within the town, and should be joined to form connecting corridors wherever possible.

Case Example: The Amherst Experience

Amherst, Massachusetts is an extraordinary success story in the preservation of open space, conservation, and recreation areas. Since 1963, Amherst has assembled a 5,182-acre network of conservation areas, protected lands, conservation restrictions, and Agricultural Preservation Restrictions that helps to balance the Town's rapid pace of land development.

To date, Amherst has assembled 1,090 acres of conservation land in 29 major areas. Another 87 acres are under Conservation Restrictions, and 1,330 acres are under pending or completed Agricultural Preservation Restrictions. Fifty-one acres of Town-owned land are under Conservation Commission management, and a 94-acre golf course property is under statutory protection as conservation/recreation land. In addition, 330 acres in town (plus 2,200 acres in adjoining towns) have been purchased and protected as Amherst watershed land.

Tactically, Amherst has used these approaches: 1) piecing together large areas one small parcel at a time; 2) economizing by making use of gifts and bargain sales; 3) using private funds donated through the Kestrel Trust to help attract state grants; and 4) relying on restrictions rather than in-fee purchases where possible.

The following examples illustrate some of the techniques used:

Wentworth Farm. In 1987, Amherst purchased a 97-acre portion of a 136-acre dairy farm when the owner moved his herd to Pennsylvania. The \$310,000 total cost received an almost unanimous Town Meeting vote because of the plan for mixed uses on the property. Through a previous arrangement with the Conservation Commission and the Town's Housing Partnership, a private developer first purchased the entire 136 acres, sold 97 acres to the Town, sold a separate 18 acres to another farmer for agricultural use, and built a 27-unit mixed low and moderate income residential project on 22 acres through the state Homeownership Opportunity Program. (HOP).

Of the 97 acres conveyed to the Town, 40 are staying in agriculture through a lease agreement with a nearby farmer, 30 acres along the Fort River function as a wildlife sanctuary, 15 acres are reserved as a future elementary school and/or recreation site, and 12 acres are to be traded to an adjacent owner for a parcel that includes a large pond and additional frontage needed for the school site. Reimbursement will be received from the Massachusetts Department of Environmental Management's "Self-Help Program" for the 70 acres of farm and conservation land.

Rosta/Gang Farm. This is a 1988 project that involved the joint acquisition of 52 acres of beautiful hillside farmland by Amherst and Shutesbury, with assistance from the Kestrel Trust. The property was to be developed as a residential subdivision, but because it was classified under Chapter 61A had to be offered first to the two towns. The 120-day deadline for acting on the right of first refusal served to galvanize the project, and both Town Meetings approved the purchase by overwhelming votes. The Kestrel Trust gave Shutesbury the additional time it needed to act by purchasing the Shutesbury portion until town funds became available at the start of the next fiscal year.

The land is now rented to an Amherst farmer who plans to actively cultivate the fields. The parcel is excellent wildlife habitat, and is open for walking, fishing, cross-country skiing, and other outdoor activities.

Eastman Brook. The protection of a 57-acre abandoned farm and an adjacent, active 40-acre farm involved three transactions including a bargain sale, a gift of land, and the purchase of a Conservation Restriction with state Self-Help funding assistance. The acreage is now in agricultural production through rental agreements, and the net cost to the Town was less than \$5,000 for the three transactions.

Amethyst Brook. The Town acquired an abandoned 39-acre farm off Pelham Road several years ago by splitting the farmhouse, barns, and one acre off the main farm property. The Kestrel Trust bought the farmhouse lot and sold it privately, recouping its expenses. With Self-Help funding included, the net cost to the Town was a little under \$500 per acre.

Robert Frost Trail. The Conservation Commission has assembled a 33-mile, 6-town hiking trail that connects town conservation areas, town watershed land, and three state properties -- the Mt. Toby State Forest, the Holyoke Range State Park, and the Five-College Bikeway (to be constructed in 1989). Through the use of easements, leases, or handshake agreements there are also many sections located on private lands. The trail crosses parts of the Lawrence Swamp, Hop Brook, Harkness Brook, Amethyst Brook, Mill River, and Eastman Brook Conservation Areas. It is maintained by town employees and by a corps of volunteer "Ridge-Walkers" coordinated by the Amherst Trails Committee.

A second long path, the 7-mile Ken Cuddeback Trail, was created in a similar manner and links the Holyoke Range, Plum Springs, Plum Brook, Mt. Castor, and Hop Brook Conservation Areas. Both trails have been instrumental in building constituencies that assist in land maintenance and support acquisition projects through Town Meeting votes and contributions to the Kestrel Trust.

Other

Conservation Areas. Other areas have been put together in a variety of ways. The Mill River area was acquired through a long series of small purchases and gifts, with funding assistance from the State Self-Help program and the Federal Land and Water Conservation Fund. Mt. Pollux was bought with the help of significant neighborhood donations to that Kestrel Trust specifically for the purchase. The Lawrence Swamp area was pieced together by a series of extremely low-cost transactions.

The success of the Town's program has depended on its ability to act creatively and to make use of all available tools.



LAND BANK

Tool or Technique:

Land banking can provide an additional method for financing and implementing local land conservation programs or, possibly, local affordable housing programs, through a real estate transfer tax.

Method of Adoption:

Adoption of a home rule petition requires a majority vote of Town Meeting. The petition can be filed with the state legislature anytime during the year. However, before a local real estate transfer can be implemented, the legislature must approve enabling legislation.*

Goals:

1. To preserve open space through land acquisition, park rehabilitation, agricultural or conservation restrictions, and other mechanisms;
2. To establish a local fund for an open space preservation program;
3. To establish a local fund to support the development of affordable housing.

Problem Addressed

As development pressures have mounted, opportunities for land conservation and preservation have diminished. Land use regulations can do much to control the form of new development in some instances, however, municipal ownership may be a preferred option. The available financing options are limited in their ability to provide an annual source of open space funds. Although there are state aid programs offering funding through a competitive application process, monies are limited and the pool of applicants is large. Because this process is so competitive, it is difficult to rely solely on state programs for acquisition funds.

Approach

In 1983, the Massachusetts state legislature authorized the Nantucket Land Bank, setting the precedent for land bank home-rule petitions. A similar program was created on Martha's Vineyard in 1985. Since 1985, the towns on Cape Cod have pursued regional legislation authorization the establishment of a land bank. In addition to Cape Cod, 36 cities and towns have, to date, voted through their Town Meeting or City Council to request authorizing from the state legislature to adopt a Land Bank fund. However, to date, none of these communities have received legislative authorization to

However, to date, none of these communities have received legislative authorization to establish a land bank. The state legislature has also considered several bills which would authorize Land Banks, at local option, statewide. In addition to open space preservation, state land bank legislation may ultimately require that a percentage of any real estate transfer tax be dedicated to the provision of affordable housing.

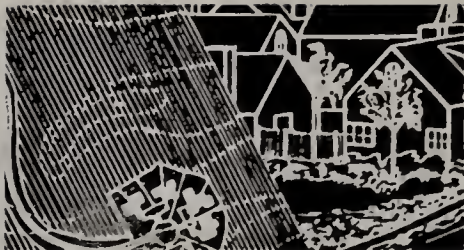
How It Works

Since land banking creates a financing mechanism for a new revenue source, any land bank proposals that are passed by Town Meeting must be authorized by the state legislature. The major impetus of a land bank proposal is the establishment of a real estate transfer tax. That revenue can then be used in an open space preservation or affordable housing program. A community has the flexibility to develop the land bank petition in a format suitable for its particular needs. Issues to be addressed in the petition can include the following:

- What the level of the tax will be (proposals range from 0.01% to 2% of a real estate transaction).
- Whether exemptions to the fee will be included. If so, the petition could delineate those exemptions (i.e., exemption for first-time homebuyers).
- Who will pay the fee (buyer or seller).
- Whether the funds will be strictly for land acquisition or will permit management and maintenance expenses.
- Who will administer the funds (Conservation Commission, a Land Bank Commission, Selectmen).

The petition can be as lengthy and detailed or as brief and conceptual as is appropriate for each community.

- * Note: The Massachusetts Legislature has indicated a resistance to approving special acts. In all probability the Legislature will deal with land bank legislation in the form of a General Law, not a series of special acts.



DESIGN REVIEW

Tool or Technique:

Design review establishes an interactive process between developer and municipal officials to review the architectural or design compatibility of any new construction with existing development.

Method of Adoption:

As an amendment to the zoning bylaw, adoption requires a two-thirds majority vote of Town Meeting.

Purposes:

1. To produce better quality designs through architectural or design review of a new development or alteration in relation to its surroundings.
2. To encourage the conservation of buildings and groups of buildings that have aesthetic or historic significance.
3. To prevent alterations that are incompatible with the existing environment or that are of inferior quality or appearance.

Problem Addressed

New development may threaten the appearance or architectural integrity of an important area in town. Residents may feel that this area warrants special consideration. For example, residents may be concerned about new business uses being developed along the town common. The nature of some business uses (i.e., convenience stores, fast-food restaurants, paper-copy stores) may not be architecturally consistent with the traditional New England style prevalent around the town common. Design review encourages new uses to become an integral part of the area.

Approach

An effective design review procedure encourages compatibility with the character of an area and permits flexibility in the process to meet the needs of individual developments. local development standards are developed and are applied to a special district or significant area in the community, based upon the specific characteristics unique to the area.

How It Works

The design review process establishes a mechanism for the review of the appearance of new structures, alterations to existing structures, and the appearance of sites within a designated area of community. The bylaw should establish clear procedures including design review board duties, appointment procedures, reviewable actions, and review standards, including height, landscaping, scale, architectural details, and roof shape. The design review board may wish to adopt design guidelines to further assist developers.

Typically a developer is subject to the design review procedure at the time the building permit application is submitted. The procedure is advisory in capacity. Any recommendation or changes suggested are advisory; the developer is not required to implement them. However, the process is designed to encourage cooperation between the municipality and developer, and such cooperation promotes implementation.



SITE PLAN REVIEW

Tool or Technique:

A zoning bylaw requiring the submission of a site plan for commercial, industrial, and in some cases, large-scale residential developments.

Method of Adoption:

Adoption requires a two-thirds majority vote of Town Meeting to amend the zoning bylaw. Site plan regulations can be adopted as a Special Permit process (Site Plan Approval) or as a review process (Site Plan Review).

Goals:

1. To ensure that new development is designed in a manner which protects the visual and environmental qualities and property values of the town.
2. To assure adequate review of plans for developments which may have significant impacts on traffic, drainage, municipal, and public services, environmental quality, and community character.

Problem Addressed

As a municipality grows and expands it must often absorb substantial and varied new development. Usually, developers are sensitive to the characteristics of their project sites and adjacent properties, but occasionally a development occurs where careless planning results in environmental, traffic, or safety problems. The consequences of such a development are felt by the entire community. The site plan review process provides a mechanism for a municipality to ensure that proposed developments provide adequately for access, circulation, parking, utilities, landscaping, and protection of important resources, before a special permit or a building permit is issued.

Approach

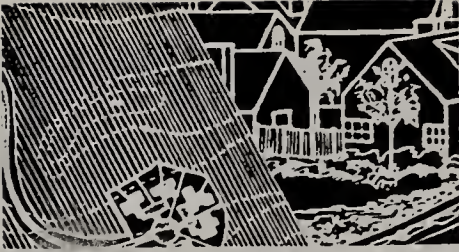
Like subdivision control, site plan review does not afford the reviewing authority the power to reject a project that meets established criteria. In other words, any project that meets site plan review standards must be approved. A project that does not meet review standards can be approved subject to conditions or modifications imposed by the Board to bring it into compliance. The Planning Board could require a developer to post a bond or security to assure imposed conditions are met.

The site plan review process can be an effective tool to prevent unattractive, careless, or haphazard development. In operation, it can ensure development of consistently high quality which enhances the image of the community.

How It Works

A site plan review is a tool used by the Planning Board to help assure that all structures and uses are developed in a manner that considers community needs. The following are examples of issues that can be addressed through site plan review:

- Traffic circulation and pedestrian safety
- Architectural and design features, scale of buildings
- Integration of development into the existing terrain
- Adequacy of water supply and sewage disposal systems
- Prevention of groundwater or surface water pollution, and flooding
- Demands on town services and infrastructure
- Screening or buffering of unsightly uses
- Prevention of conflicts between residential, commercial, and industrial uses
- Minimizing odors, noise, glare, and other environmental impacts



DISCONTINUING ROADS

Tool or Technique:

If a public way no longer serves a public use, a community may decide to relinquish its responsibility for the local public way by discontinuing or abandoning a road. This process may involve the discontinuance of the year-round maintenance necessary to keep a way reasonably convenient for traffic and/or the abandonment of the public's right of access to the road. There is no distinction in Massachusetts law on local public ways between "discontinuing" and "abandoning" a way.

Method of Adoption:

Two methods of adoption exist:

1. Under M.G.L. Chapter 82, Section 21, a way may be discontinued by a majority vote at Town Meeting.
2. Under M.G.L. Chapter 82, Section 32A as amended by Chapter 136 of the acts of 1983, the municipal board with authority over public ways may discontinue such a way, after notifying abutters and holding a public hearing.

Goals:

1. To improve growth management in the community by ensuring that new development occurs on lots with frontage on accessible roads;
2. To protect the community from responsibility for paving, maintaining, or providing public services on non-existent or inaccessible roads.

Problem Addressed

Rural communities, in particular, frequently face problems or confusion when subdivisions or other developments are proposed with lot frontage on unpaved dirt roads, paths, or non-existent roads. Unless communities take steps to formally discontinue or abandon such roads, they can be faced with responsibility to maintain or pave these roads. According to M.G.L. Chapter 84, Section 1, town ways must be kept in good repair at the expense of the municipality. Further, a person who is injured or whose property is damaged because of a defect in a town road can, in some

whose property is damaged because of a defect in a town road can, in some circumstances, recover damages from a community.

Approach

In order to determine, if possible, which ways in town are public ways, a map showing all town ways should be compared with the town clerk's list of ways. Obtaining evidence to prove that a road is a public way could be a long and tedious task. Legal counsel may be necessary to expedite the procedure. If a developer wishes to build on an old dirt road, the burden of proof regarding the status of the road lies with the developer (petitioner) and not on the municipality.

How It Works

If it has been determined that the way is indeed a local public way, the town has two options for discontinuance. M.G.L. Chapter 82, Section 21 permits a town to discontinue a way by majority vote of town meeting. Unfortunately, there is no procedure for discontinuance described in the statute. A second method for discontinuance is found in M.G.L. Chapter 82, Section 32A as amended by Chapter 136 of the Acts of 1983. The municipal entity in charge of public ways may discontinue a way after following statutory procedures. These include contacting abutters and other property owners with possible interest in the way to determine if they have abandoned their rights to the way for access. Written confirmation is suggested. Before discontinuance or abandonment of a way, the town should pursue legal advice regarding the status of the way and the ramifications of its discontinuance.



C. GOAL: PROTECT NATURAL RESOURCES AND ENVIRONMENTAL QUALITY

The protection of key natural resources such as water supply aquifer recharge areas and watersheds, open space, rivers and streams, and floodplains are priority goals for many communities. These resources are frequently the victims of rapid or haphazard growth.

The protection of water supplies is of critical importance if Massachusetts residents are to continue to enjoy both their present quality of life and the benefits of growth. In Massachusetts, forty-seven communities have had public water supplies closed due to contamination in the past two decades. The closings represent the temporary or permanent loss of 105 public wells or reservoirs across the state. Many communities have lost private wells in far greater numbers to pollution. The sources of contamination include industrial chemicals and wastes, road salts, pesticides, leaking petroleum storage tanks and landfills.

Floodplains and wetlands are important natural resources which protect communities from economic damages to buildings and property and possible human injury due to floods, while providing valuable wildlife and plant habitat. These resources are threatened by development pressures in communities without adequate local regulations or enforcement of state and federal laws.



WATER SUPPLY PROTECTION ZONING

Tool or Technique:

Water supply protection zoning districts can be established to protect the quality of public drinking water supplies, including aquifer recharge areas and reservoir watersheds, from hazardous land uses.

Method of Adoption:

Water supply protection zones must be based upon well-defined and mapped aquifer recharge or watershed areas. As an amendment to the zoning bylaw, adoption requires a two-thirds majority vote of Town Meeting.

Goals:

1. To promote the health, safety, and welfare of the community by protecting surface and groundwater resources used for public drinking water.
2. To restrict land uses which may pose a threat or hazard to the quality of drinking water resources.

Problem Addressed

In the past two decades, forty-seven Massachusetts communities have experienced the permanent or temporary loss of 105 public wells or reservoirs due to pollution. Surface and groundwater resources are threatened with potential contamination from many sources including landfills, septic systems, pesticides, industrial hazardous wastes, road salts, and gasoline storage tanks. Although efforts are being made, many of these potential pollutants are not adequately addressed by state or federal laws. However, in the interim, Planning Boards and other community officials can design regulations such as zoning overlay districts to help protect aquifer recharge areas.

The costs of water supply pollution are considerable once contamination has occurred, particularly in the case of groundwater, and the water source may be lost to a community for many years, if not forever. In addition, public health may be threatened. Finally, replacement water supplies may be unavailable or prohibitively expensive. For all these reasons, it makes sense for communities to take action now to protect water supplies before pollution occurs.

Approach

The protection of drinking water resources requires a comprehensive approach to regulate and control the multitude of potential water contaminants. A comprehensive approach should, ideally, include not just a zoning overlay district, but also the following strategies:

- Hazardous material regulations
- Underground storage tank standards
- Road salt policies
- Land acquisition

which are also described in this section of the guidebook.

How It Works

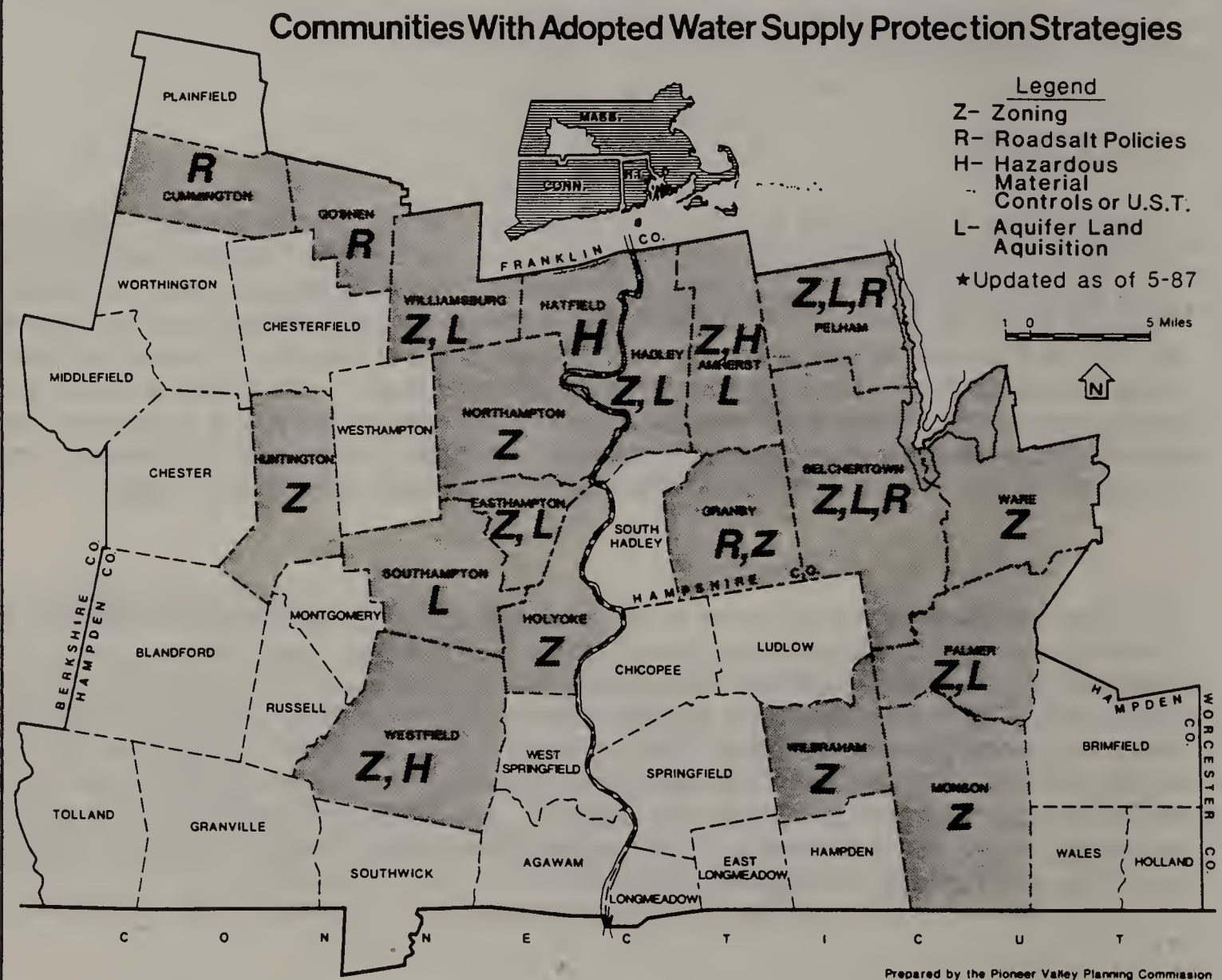
The first step in designing a protection strategy is to develop a detailed map of the aquifer recharge area for municipal wells and watershed areas for municipal reservoirs. This task will generally require outside assistance from a hydrogeological consultant or regional planning agency. The extent of the recharge and watershed areas will serve to define the boundaries of the zoning overlay district. It is important, therefore, that the map be based upon sound analysis of hydrogeologic data. Useful data sources in this mapping process include U.S. Geologic Survey surficial geology and watershed maps, consultant studies for municipal wells, private well driller's logs, and the Massachusetts Department of Environmental Quality Engineering groundwater overlay maps.

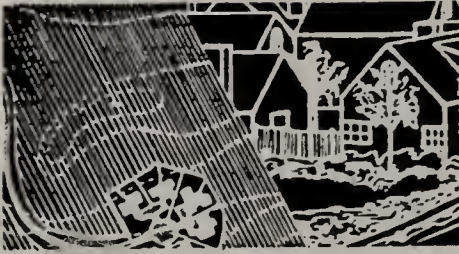
The second step in the process is to evaluate existing and potential surface and groundwater contamination sources. Once a Planning Board knows where its watershed or aquifer recharge area is located, it can begin to evaluate the potential water supply contamination from existing businesses, industries, and residences in that area. A planning board should also look at the existing zoning for lands within the water supply area to evaluate potential development trends. Potential contamination sources which should be investigated include: landfills, junkyards, underground storage tanks, businesses and industries which use hazardous materials, septic systems, pesticide spraying and highway salt application.

The final step is designing a water supply zoning overlay district tailored to the Town's specific needs. The new district is established to protect the primary aquifer recharge and watershed areas identified in the mapping process. A detailed hydrogeologic map highlighting the water supply zoning district can be adopted as part of the zoning bylaw by reference. New regulations can be adopted to prohibit particularly hazardous land uses, create larger lot sizes in unsewered areas based on soil types, restrict sand and gravel removal and underground storage tanks, control drainage recharge, and allow certain business or industrial uses through a stringent special permit process.

Case Example:

In the heavily groundwater-dependent Connecticut Valley region, the Pioneer Valley Planning Commission has worked with 18 communities to assist in the development of an interlocking regionally-coordinated approach to water supply protection. Since groundwater is truly a regional resource which does not conform to municipal boundaries, each community is adopting a virtually identical set of water supply zoning overlay bylaws, hazardous material regulations, underground storage tank standards, and road salt policies, as illustrated on the map below.





FLOODPLAIN MANAGEMENT

Tool or Technique:

Floodplain zoning overlay districts can be established to preserve natural flood storage areas and reduce the severity of floods.

Method of Adoption:

Floodplain overlay zones must be based upon detailed maps illustrating 100-year floodplains developed under the National Flood Insurance Program. As an amendment to the zoning bylaw, adoption requires a two-thirds majority vote of Town Meeting.

Goals:

1. To provide adequate and safe floodwater storage capacity;
2. To prevent filling or building within floodplains and floodways which would increase the severity of floods;
3. To ensure that lands subject to flooding will not be used for residences or other land uses which will endanger the health, safety, or economic well-being of residents.

Problem Addressed

Despite federal efforts such as the National Flood Insurance Program, flooding continues to be a nationwide problem. In the Connecticut River basin alone, floods still cause an average \$15 million in economic damages yearly and these costs are steadily increasing. Floodplains are valuable to communities because they provide a temporary storage area for floodwaters which have overtopped the main channel of a river or stream. Floodwaters can then be slowly released through surface discharge, evaporation, or percolation to groundwater. The protection of floodplains is important in minimizing the damaging effects of floods, and reducing the severity of floods.

The building of a structure in a floodplain area not only places that structure in danger of flood damage, but also increases the overall severity of flooding. Each structure built in a floodplain incrementally eliminates flood storage area or restricts flows, thereby increasing the extent, level, and severity of flooding and increasing damage to public and private property.

Approach

A majority of Massachusetts communities have adopted some form of floodplain zoning. However, most have simply adopted the minimum standards necessary to comply with the National Flood Insurance Program in order to become eligible for federal flood insurance. The standards often impose only minimal restrictions on building and filling in floodplains. Communities are discovering that better protection is needed to prevent increased flood damages.

How It Works

Planning boards can help protect floodplains through developing effective floodplain zoning to preserve natural flood storage area and reduce the severity of floods. Floodplain zoning bylaws can be designed to prevent development within the floodplain that might increase flood levels and velocities, or cause flood damages due to unanchored materials. Any new floodplain development can be required to comply with stringent Special Permit standards requiring the applicant to demonstrate that the development will not increase flood levels or severity.

Zoning can also prohibit filling, dredging, or dumping in floodplains, storage of flotation equipment or structures, and land uses which are hazardous if flooded, such as landfills, junkyards, outdoor pesticide or salt storage, or businesses which store hazardous materials.

Finally, zoning bylaws should ensure that developments are in conformance with State Building Code requirements for floodproofing. In addition, subdivision regulations can be designed to ensure adequate drainage systems, to protect public utilities from flood damage, and to require base flood elevation data. Model subdivision regulations have been developed by the Federal Emergency Management Agency.



RIVER PROTECTION ZONING

Tool or Technique:

River Protection Districts can be established as overlay zones to protect the riverbank and the scenic qualities of important rivers, and to minimize adverse development impacts and conflicts.

Method of Adoption:

As an amendment to the zoning bylaw, adoption requires a two-thirds majority vote of Town Meeting. Zoning district boundaries should be delineated on an overlay zoning map.

Goals:

1. Enhance and preserve existing scenic or environmentally sensitive areas along the shoreline;
2. Prevent any disruption of the natural flow of the river;
3. Control erosion and siltation;
4. Protect fisheries within the river;
5. Conserve shore cover and encourage well-designed developments.

Problem Addressed

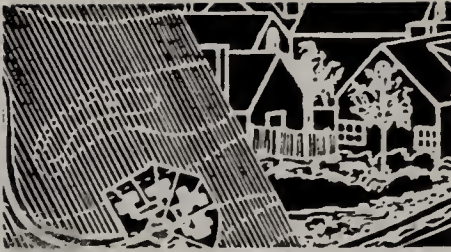
Rivers in Massachusetts are under pressure for a variety of uses including recreational activities, energy projects, and residential development. Development along the shoreline occurs incrementally, slowly changing the appearance and use of the river. Zoning regulations can be useful in ensuring lands uses will be compatible with river conservation objectives, and prohibiting uses which diminish scenic amenities or endanger natural resources.

How It Works

A River Protection overlay district can be designated for a portion of the riverbank from the shoreline landward up to an established distance from each bank. Uses permitted as a matter of right should be limited to those consistent with the scenic qualities of the river, such as agricultural production, recreational uses, reasonable emergency procedures, conservation measures, and residential development on lots with frontage on an existing way (Approval Not Required development). Residential subdivisions in the district can be required to include mandatory clustering, and be located away from the shoreline to the maximum practical extent. River protection design standards can be established for all new residential uses, such as the following:

1. All structures must be located at an established setback (i.e., 100 feet) from the shoreline and be visually screened from the shoreline by a vegetated buffer;
2. Each structure should be integrated into the existing landscape so as to minimize its scenic and environmental impact;
3. Runoff should be directed toward areas covered with vegetation.

In order to protect the scenic and environmental integrity of the district, certain uses should be prohibited outright, such as altering, dumping, filling, removal of riverine materials, or dredging. In addition, no clear cutting of existing vegetation and no more than minimal disruption of wildlife habitat should be permitted.



SCENIC UPLAND ZONING

Tool or Technique:

Overlay zoning districts can be established to protect mountain or upland areas of unique visual appeal and scenic quality from aesthetic or environmental degradation.

Method of Adoption:

Scenic and natural resource areas must be mapped, based upon objective criteria. As an amendment to the zoning bylaw, adoption requires a two-thirds majority vote of Town Meeting. Similar regulations have also been adopted as state legislation (Berkshire Scenic Mountains Act, M.G.L. Chapter 131, Section 39a)

Goals:

1. To protect community character, property values and public welfare by preventing erosion, sedimentation, flooding, water pollution, and visual or environmental degradation due to damages to scenic areas or unique natural resource areas.
2. To regulate vegetation removal, new construction, filling or excavation of land which could adversely affect scenic qualities or natural resources.

Problem Addressed

Scenic areas, such as prominent ridge lines, wooded canyons, or exceptional vistas are important resources which contribute to the character and quality of life of a community. These same areas are also commonly the most fragile areas with the least carrying capacity for development due to steep slopes, unstable or poor soils, and inadequate public infrastructure. In order to avoid problems of erosion, sedimentation, septic tank failures, flooding, water pollution, and the destruction of scenic qualities or natural resources, development must be done with a particular sensitivity to the land in scenic upland areas.

Purpose

The purpose of a scenic district is to regulate alterations of land which may have significant effects on natural resources or scenic qualities. The overlay district can regulate those alterations of the land which may cause pollution of the ground or surface water supply (public or private); erosion; substantial changes in topographic features; destruction of vegetation; flooding; or other visual/aesthetic degradation.

Approach

Scenic district regulations function in a similar manner to site plan review or design review bylaws. All proposed development is scrutinized for potential negative effects on the environment, and on the scenic amenities of the district.

How It Works

The following issues could be addressed in scenic area regulations:

1. Alterations to the environment:

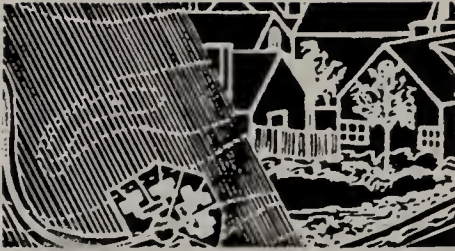
- control removal, excavation, or dredging of soil, sand, gravel, or aggregate material of any kind;
- regulate changing of pre-existing drainage characteristics, sedimentation patterns and flow patterns;
- control removal or destruction of plant life, including cutting of trees;
- regulate drainage or disturbance of existing water courses or water table;
- prevent substantial change in topographic features;
- control water pollution

2. New residential or commercial development:

- create design or architectural guidelines for new structures;
- establish screening or buffer areas for new development;
- establish standards for landscaping or site treatment;
- controls on relationship of new structures to the site and adjoining properties;
- regulations for amount of paved or impermeable surfaces;
- controls on signs, lighting and other street hardware;
- prevent building on very steep slopes, wetlands, or other sensitive lands.

3. Incentives for land uses which maintain scenic qualities:

- promote and protect farming, forestry practices;
- encourage passive and active recreation uses;
- direct growth to less critical and sensitive areas.



WETLANDS PROTECTION BYLAW

Tool or Technique:

A local wetlands protection bylaw can be established to provide increased control over development activities affecting wetland areas (as defined in the Wetlands Protection Act, M.G.L., Ch. 131, Sec. 40).

Method of Adoption:

Under the general powers of a city or town, a wetlands protection bylaw can be adopted as a town or municipal bylaw/ordinance. Adoption of such a bylaw/ordinance requires a majority vote of Town Meeting.

Goals:

1. To promote enforcement of the Massachusetts Wetlands Protection Act and provide greater local control of wetland protection;
2. To protect the wetlands, related water resources and adjoining land areas in the community by controlling activities likely to have a significant or cumulative effect upon wetland values;

Problem Addressed

Although the Wetlands Protection Act does offer communities an opportunity to protect wetland areas, it is too broad-based to address specific community concerns generated by development activities. By adopting a local wetlands protection bylaw a municipality can increase control over activities not regulated in the Massachusetts Wetlands Protection Act.

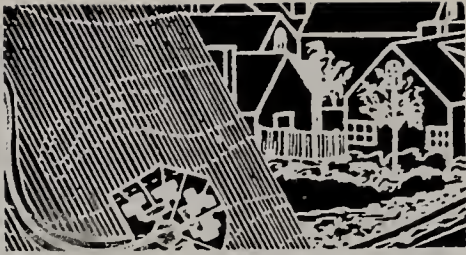
Approach

As a local control, the wetlands protection bylaw draws from the Massachusetts Wetlands Protection Act and widens its scope. The Conservation Commission is the bylaw administrator and as such can not only regulate development as permitted in the Wetlands Protection Act, but can deny a permit. If a negative decision is made by the Conservation Commission, the applicant/developer must appeal in Superior Court, rather than appealing to the Division of Environmental Quality Engineering as required in the Massachusetts Wetlands Protection Act.

How It Works

The 1968 Inland Wetlands Protection Act regulates dredging, filling, removing, and altering of wetlands. The Wetlands Act Amendments increased the scope of wetlands protected by the Act, including the addition of wildlife habitat as an interest of the Act. However, communities may desire additional control. A local wetlands protection bylaw could provide local regulation and greater protection of wetlands in the following areas:

- provide Conservation Commission jurisdiction over all isolated wetlands (i.e., vernal or seasonal ponds with amphibian habitat), some of which are currently unregulated by the Massachusetts Wetlands Protection Act;
- establish a one hundred foot buffer zone (afforded by the Act to many wetland resource areas) for land subject to flooding;
- provide greater protection for wetland values such as recreation, aesthetics, erosion control, and wildlife which are not regulated by the Act;
- increase coordination between town boards on wetlands protection;
- define the required contents of a Notice of Intent;
- establish a system of fees based upon the complexity of a project, and difficulty of review.



REDUCED ROAD SALT POLICIES

Tool or Technique:

A municipal policy to reduce the amount of road salt (or sodium chloride) applied to highways in order to protect water supplies from salt contamination.

Method of Adoption:

Reduced road salt policies can be adopted at the community level by a majority vote of the Board of Selectmen. Implementation of the policy will require the cooperation of local highway maintenance personnel, and in the case of state highways, the Massachusetts Department of Public Works.

Goals:

1. To protect water quality in public or private water supply wells or reservoirs from excessive levels of sodium contamination due to the run-off of highway de-icing materials.
2. To maintain highway safety, while reducing the amount of sodium chloride used for winter highway maintenance.

Problem Addressed

Road salt run-off from highways and salt storage areas has contaminated drinking water supplies in many Massachusetts communities. High sodium levels have forced the closing of numerous public or private wells adjacent to highways, notably in Goshen and Pelham in western Massachusetts. Massachusetts has established a state drinking water standard for sodium of 20 milligrams per liter in order to protect public health.

Approach

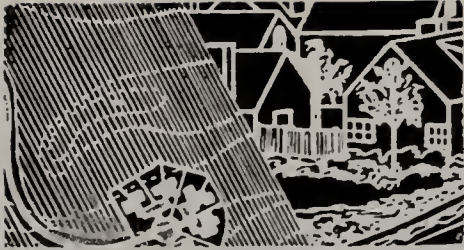
Road salt contamination risks can be minimized by careful management of the storage of de-icing salt and its application. Communities can develop a municipal policy to achieve reductions in salt use and better salt management using the following process:

The Essential Steps To Be Carried Out

- Step 1: Identify Existing or Potential Road Salt Contamination Problems
- Step 2: Establish a Local Road Salt Advisory Task Force
- Step 3: Inventory, Assess, and Map Local Water Supply Resources
- Step 4: Identify and Map Potential Sources of Salt Contamination
- Step 5: Map Salt-Sensitive Areas
- Step 6: Develop Local Road Salt Policy
- Step 7: Maintain Roadways Within Designated Environmentally Sensitive Areas
- Step 8: Conduct Public Education and Awareness Campaign
- Step 9: Conduct Water Quality Monitoring

How It Works

Communities should adopt specific procedures aimed at minimizing the adverse impacts of road salt on local water supplies while maintaining safe driving conditions. In order to successfully implement policies to reduce salt application or promote the use of salt substitutes, communities will need, at a minimum, the involvement and cooperation of the Massachusetts Department of Public Works and local highway department officials.



HAZARDOUS MATERIALS BYLAWS

Tool or Technique:

A municipal bylaw or regulation to require registration of hazardous materials being stored in commercial volumes.

Method of Adoption:

Municipal bylaws to require hazardous materials registration may be adopted by home rule authority under M.G.L. Chapter 40, Section 21. In addition, local Boards of Health are given powers under M.G.L. Chapter 111 to adopt regulations to protect public health. Boards of Health can adopt hazardous materials controls by majority vote of the Board.

Goals:

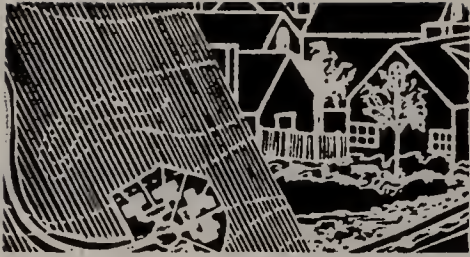
1. To promote the safe, proper storage of hazardous materials in order to protect the health, safety, and welfare of residents.
2. To protect groundwater supplies and the environment from pollution due to spills, leaks, or other releases of hazardous materials.

Problem Addressed/Approach

The storage and disposal of hazardous wastes are regulated under the Massachusetts Hazardous Waste Management Act, M.G.L. Chapter 21C. However, hazardous materials are not regulated until they become wastes. Many communities have found it advantageous to control and require registration of hazardous materials storage in commercial volumes in order to minimize hazards to neighboring properties or occupants, Fire Department personnel who may be called to fight chemical fires, and to minimize groundwater pollution threats.

How It Works

Municipal bylaws or Board of Health regulations can be adopted to require registration describing the volume, type, and location of hazardous materials stored in commercial volumes. Registration can be administered by either the Fire Department or Board of Health. Standards can be established for storage to minimize the risk of spills, leaks, or other problems which may result in the release of hazardous materials to the environment. Bylaws can also allow for periodic inspections by Board of Health or other municipal personnel to ensure safe storage conditions are being maintained.



UNDERGROUND STORAGE TANK REGULATIONS

Tool or Technique:

A municipal bylaw to regulate underground fuel storage tanks of less than 1,100 gallons capacity.

Method of Adoption:

Adoption requires a majority vote of Town Meeting. Regulations may be adopted by home rule authority under M.G.L. Chapter 40, Section 21.

In addition, under the provisions of M.G.L. Chapter 148 communities may also make and enforce related bylaws provided they are not inconsistent with the Commonwealth's rules and regulations. To ensure consistency, a municipal bylaw of this type must be submitted to the Massachusetts Board of Fire Prevention within ten days of passage for review and approval by the Board.

Goals:

1. To provide for the proper construction, installation, and maintenance of under-ground fuel storage tanks.
2. To prevent leaking storage tanks which could pollute groundwater and threaten public health and safety.

Problem Addressed

Leaking underground storage tanks for gasoline, heating oil, or other fuels are a significant problem in Massachusetts and across the nation. Approximately 57 private wells in Massachusetts have been contaminated by leaking tanks. A 1977 leak from a service station storage tank contaminated a public water supply well for Provincetown, Massachusetts, with an estimated clean-up cost which may ultimately reach \$25 million.

Approach

Underground storage tanks are regulated under M.G.L. Chapter 148 which deals with fire prevention. The Massachusetts Board of Fire Prevention regulations 527 CMR 9.00 establish standards for tank construction and installation to prevent leaking tanks from polluting groundwater. However, these regulations only apply to tanks larger than 1,100 gallons capacity. Thus, most residential underground heating oil and gasoline tanks and some commercial tanks are exempted. Many municipalities have adopted standards to ensure that tanks under 1,100 gallons capacity are also regulated according to standards comparable to Massachusetts Board of Fire Prevention regulations.

How It Works

The regulations would prohibit all new underground storage tanks within the community's water supply area, whether an aquifer recharge area or reservoir watershed area. Any new heating fuel tanks in the water supply area would be required to be placed within the basement of the building served by the tank.

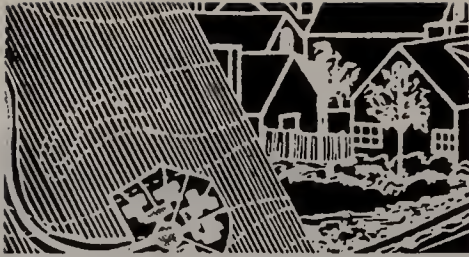
New underground storage tanks outside the water supply area would be allowed only with a permit from the Fire Department. Such tanks would be subject to regulations on construction, installation, and regular testing. These standards are consistent with state standards for underground tanks over 1,100 gallons capacity.



D. GOAL: PROMOTE QUALITY COMMERCIAL AND INDUSTRIAL DEVELOPMENT

Commercial and industrial development are highly sought after goals of many communities because such developments can reduce local real estate tax rates, provide local jobs, and boost the local economy. However, if not carefully planned and controlled, business and industrial growth can adversely affect communities. Uncontrolled commercial strip development along highway corridors can significantly alter community character in a profusion of fast-food restaurants, signs, and parking lots. Failure to adequately plan for economic development can have severe impacts on public services such as sewer and water capacities, and can adversely affect traffic safety and movement, in worst cases leading to gridlock. Environmental quality can be damaged if standards are not set for noise, storage of hazardous materials, erosion, storm water runoff and related issues.

In order to fully benefit from economic growth, communities must carefully plan for where that growth will occur, what form it will take, and how to minimize adverse community impacts. The following section describes local strategies that can help to achieve quality commercial and industrial growth.



COMMERCIAL CORRIDOR STANDARDS

Tool or Technique:

The purpose of this district is to promote quality commercial growth and provide for a superior environment along major transportation corridors through the application of performance standards for commercial development and landscaping.

Method of Adoption:

Commercial corridors must be defined and delineated on a zoning map. Adoption requires two-thirds majority vote of Town Meeting to amend the zoning bylaw.

Goals:

1. To promote highway traffic safety and prevent traffic congestion;
2. To promote an attractive and viable commercial district and expand the local commercial tax base;
3. To protect community character and amenity by discouraging unlimited commercial "strip development" along highways and encouraging commercial growth in nodes and clusters.

Problem Addressed

In many communities, highway corridors have been historically zoned for business and play a major role in the town's commercial development. Without proper rules to govern the location and pattern of commercial development, a haphazard mix of less desirable uses will almost certainly arise. Therefore, a development strategy is needed which will both expand the community's tax base, while ensuring that new commercial ventures are:

- a. located in areas where land use and traffic conflict will be minimized, and
- b. designed and landscaped in a manner which will be compatible with community character, will maintain an attractive business district, and will promote quality commercial development to expand the town's tax base.

Approach

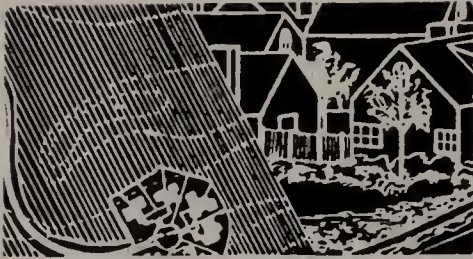
Commercial corridor zoning regulations can increase local control over development along highways to reduce the problems associated with traditional "strip development." They can encourage compatibility of new development, support and complement existing land uses and establish a positive design image for the future. An important purpose for commercial corridor zoning is to ensure that new roadside development does not create further traffic management problems and safety hazards in town, and that appropriate uses for land are encouraged for the remaining undeveloped parcels along the highway. With a commercial corridor bylaw, a community can promote environmentally sound development by establishing layout and design standards and can maintain scenic quality by buffering and landscaping requirements.

How It Works

A proposed development should provide for safe access to and from public and private roads. Particularly along major highways and thoroughfares, safe access should be assured by providing the adequate number and location of access points, with respect to sight distances, intersections, schools, and other traffic generators. "Curb cuts" should be limited to the minimum number and width necessary to provide for safe entering and existing. Curb cuts on heavily travelled roads can be minimized by encouraging common driveways and entranceways serving adjacent lots or premises, by clustering businesses or using loop roads, or by encouraging access from side streets. A proposed development can provide safe interior circulation within its site by separating pedestrian and vehicular traffic and providing adequate parking and loading areas.

Communities can accomplish these goals by requiring mandatory site plan approval for all new businesses within the commercial corridor. Site plan approval would be subject to meeting criteria which reflect community goals, such as the following:

- Landscaped buffer strips along public roads, parking lots, and adjacent to residential areas;
- Screening for exposed storage and utility areas;
- Controls on the size, placement, height, lighting, materials, and aesthetics of signs;
- Parking and loading requirements;
- Performance standards for erosion control, stormwater run-off, noise, odor, and related environmental impacts;
- Architectural design standards, particularly in historic areas, to ensure compatibility of new development with surrounding properties in terms of scale, height, window size, roof pitch, etc.



SIGN STANDARDS

Tool or Technique:

A sign bylaw can be established to help improve the visual appearance of a community by regulating the design and placement of signs.

Method of Adoption:

As an amendment to the zoning bylaw, adoption requires two-thirds majority vote of Town Meeting.

Goals:

1. To protect public and private investment in buildings and open spaces.
2. To encourage signs, which, by their location and design, are harmonious with the buildings and sites which they occupy, and which eliminate excessive and confusing sign display.
3. To eliminate potential hazards to motorists and pedestrians.

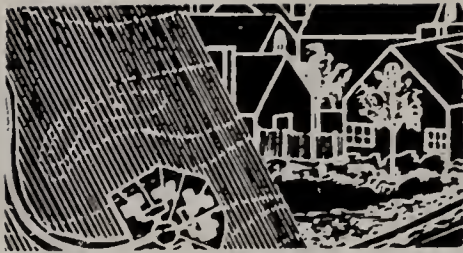
Problem Addressed

Signs play an important role in visual landscape. By their nature, signs are highly visible and designed to attract attention. These attributes can lead to a variety of problems. Too many signs along the roadside make it difficult for pedestrians or motorists to absorb all the information conveyed by these signs and add to "commercial strip" appearance. Excessive sign sizes dominate landscape and obscure the community's character. Signs may be located so close together that motorists can not read them.

How It Works

A sign ordinance or bylaw applies to the establishment, alteration, location, and maintenance of all signs, whether these are outdoor signs, signs attached to a structure, or signs inside a structure visible to passer-bys. In order for a sign bylaw to be effective, design and placement standards for all signs throughout the community must be established. These standards include the type of signs permitted, illumination of signs, appropriate lettering and sign materials, and sign heights.

In order to meet the needs of different districts in town/city, special regulations can be established. For instance, signs in the town center should be consistent with the character of historic buildings, and be designed to be readable by pedestrians and motorists in slow-moving traffic.



PARKING STANDARDS

Tool or Technique:

An off-street parking bylaw prescribes the correct amount of off-street parking spaces necessary for a variety of uses without impairing the visual quality of an area.

Method of Adoption:

As an amendment to the zoning bylaw, adoption requires two-thirds majority vote of Town Meeting.

Goals:

1. To promote highway traffic safety and protect the capacity of highways and roads to conduct traffic smoothly and efficiently.
2. To provide adequate parking while establishing an attractive, screened parking area.
3. To protect the character, aesthetic visual qualities and property values of the community and neighboring areas.

Problem Addressed

Failure to provide adequate parking standards can lead to the creation of developments with too little parking causing traffic congestion. The shortage of parking spaces has an impact on the flow of traffic on surrounding streets and the accessibility of adjacent properties. The visual impact of parking areas, if unregulated, can impair the quality of the surrounding neighborhood.

How It Works

Since parking needs vary with commercial, industrial, or residential uses, standards which establish the required number of spaces should reflect these unique needs. In addition, loading and unloading standards should be established whenever the normal operation of any development requires that goods and merchandise be routinely delivered to any establishment. In order to ensure that the visual quality is not impaired, design standards should be established. These standards include the location of parking areas, drainage, screening and lighting requirements.



PLANNED INDUSTRIAL DEVELOPMENT

Tool or Technique:

A Planned Industrial Development bylaw which encourages an industrial development to be planned and developed as an integral unit, permitting primarily light industrial uses.

Method of Adoption:

As an amendment to the zoning bylaw adoption requires a two-thirds majority vote of Town Meeting.

Goals:

1. To attract environmentally acceptable light industries;
2. To encourage diversity in the community tax base through appropriate industrial development;
3. To minimize potential adverse environmental conditions, such as pollution and noise, associated with industrial development.

Problem Addressed

Most residential communities would like to broaden their tax base and include some opportunities for industrial development within their boundaries. However, many communities are concerned about possible conflicts that may arise from permitting such uses (i.e., conflict with a surrounding residential area or potential environmental hazards).

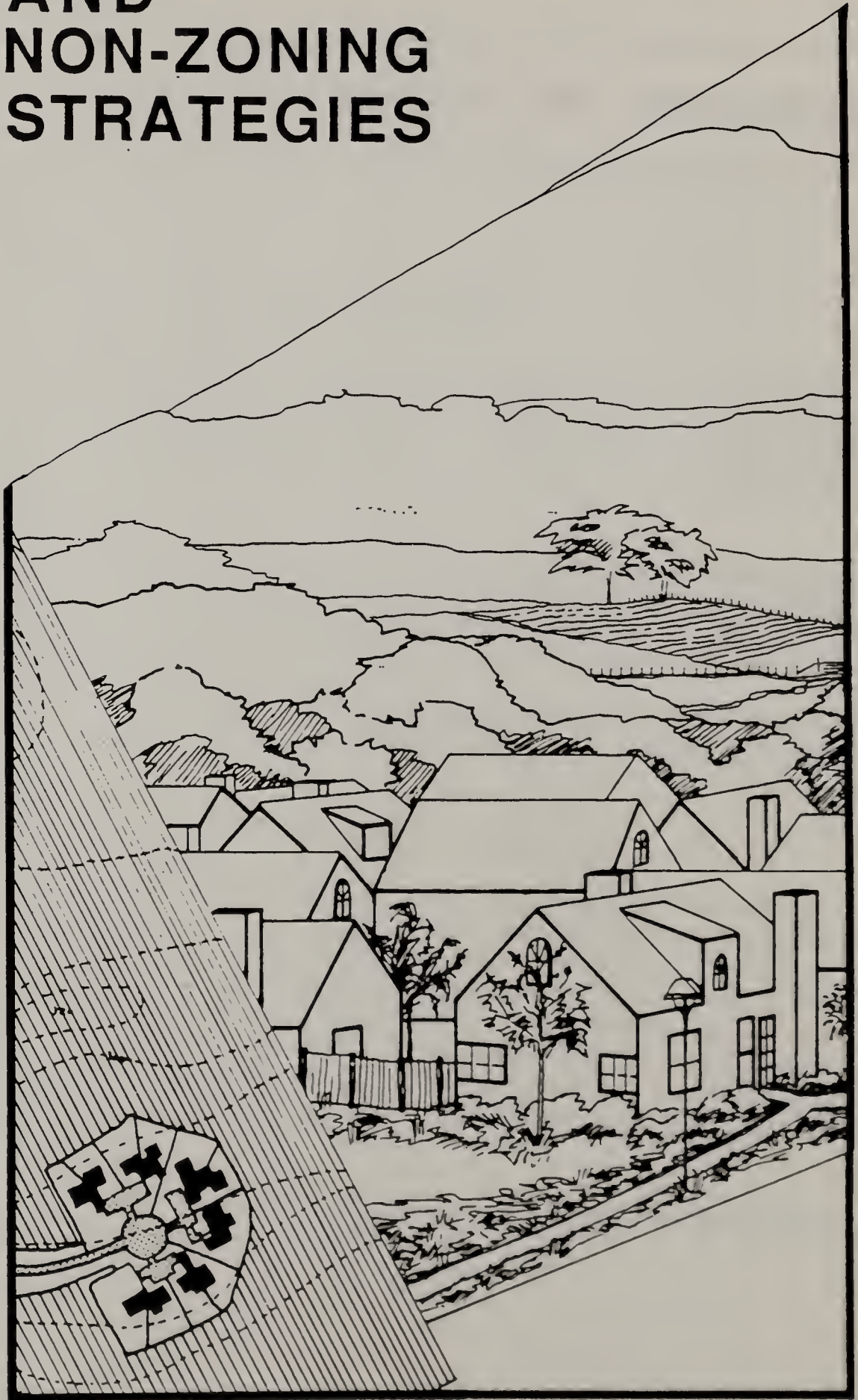
Approach

A Planned Industrial Development bylaw would permit light industries to be developed in designated areas within the community, with a landscaped environment and the maintenance of operations, with a minimum of noise and pollution, designed not to conflict with surrounding residential community.

How It Works

A planned industrial development should be allowed only by Special Permit with Site Plan Approval from the Special Permit Granting Authority in specified districts. Permitted uses in a planned industrial development can be classified as three types: light industrial, the primary use; support, offices and services to serve the convenience needs of the employees within the development; and other complementary uses. The bylaw should establish procedures for application, design standards and performance standards. To ensure the development becomes an integrated element in the community, design standards may address the following: access, landscaping, and parking. Performance standards are designed to minimize impacts resulting from industrial uses and may address the following concerns: lighting, noise, vibration, air pollution, odors, dangerous materials, water pollution, erosion, wastes and refuse.

III. MODEL ZONING BYLAWS AND NON-ZONING STRATEGIES



III. MODEL ZONING BYLAWS AND NON-ZONING STRATEGIES

A. HOW TO USE THE MODEL BYLAWS

This section of *Land Tools and Techniques* contains a comprehensive set of model zoning bylaws and other non-zoning strategies which can be used by community officials to address growth management problems. In determining the tools and techniques appropriate to your community's needs, we suggest you consider the following:

1. Be sure that the decision to adopt a new growth management tool or technique is based on a well-conceived planning process, including public participation, determination of community goals, defining community needs or problems, and mapping resources, environmental constraints and other land characteristics.
2. Carefully review the "Menu of Tools and Techniques" contained in Section II to find the appropriate strategy best suited to addressing your community's unique goals or problems.
3. Study the model bylaws and strategies in this section carefully.
4. Tailor the selected model bylaw or strategy to meet your community's needs, and to ensure compatibility with other components of the community's zoning bylaw or related regulations. Do not merely adopt the language of any model bylaw verbatim. Careful attention must be given to bylaw details and how the model bylaw fits into your community's existing bylaw. For example, if you are considering adopting the model farmland preservation zoning bylaw, which makes reference to a site plan approval process, it is significant to ensure that your existing zoning bylaw contains a site plan approval process which can be linked to the farmland bylaw.
5. Provide for the legal review of the proposed bylaw by town counsel before proceeding with public hearings and adoption.

B. STRATEGIES TO ENCOURAGE A VARIETY OF HOUSING TYPES



MODEL OPEN SPACE COMMUNITY ZONING BYLAW

(Based on a bylaw adopted by the Town of Granby, Massachusetts
and Town of Whately, Massachusetts)

B-1 OPEN SPACE COMMUNITIES

1.00 Open Space Communities shall be permitted in the _____ districts only upon issuance of a Special Permit with Site Plan Approval from the Planning Board, as specified in Sections ____ and ____ of this bylaw, and in accordance with the additional requirements specified herein.

1.01 General Description

An "Open Space Community" shall mean a single family residential development in which the houses are clustered together into one or more groups on the lot and separated from each other and adjacent properties by permanently protected open space.

1.02 Purposes

The purposes of open space community development are to:

- a. allow for greater flexibility and creativity in the design of residential subdivisions, provided that the overall density of the development is no greater than what is normally allowed in the district;
- b. encourage the permanent preservation of open space, agricultural lands, and other natural resources;
- c. maintain the traditional New England rural character and land use pattern in which small villages contrast with open space and farmlands;
- d. facilitate the construction and maintenance of streets, utilities and public services in a more economical and efficient manner;
- e. encourage a less sprawling form of development that consumes less open land.

1.03 Additional General Requirements

The following standards shall be used as additional requirements in the special permit/site plan approval process for all open space communities:

- a. The development shall include single family dwelling only.
- b. The minimum land required for open space community development shall be five (5) acres and the parcels shall be held in single ownership or control at the time of application.
- c. Each lot shall have adequate access on a public or private way.
- d. Each lot shall be of a size and shape to provide a building site which shall be in harmony with the natural terrain and other features of the land.
- e. There shall be an adequate, safe, and convenient arrangement of pedestrian circulation, facilities, roadways, driveways, and parking.
- f. The site plan shall identify the location and extent of all wetlands on the site as determined by the Conservation Commission under the Massachusetts Wetlands Protection Act, M.G.L. Chapter 131, Section 40.

1.04 Additional Utility Requirements

- 1.041 All structures which require plumbing shall be connected to a public sanitary sewer, if available, or to a community septic system at no expense to the municipality.
- 1.042 For dwellings to be served by on-site waste disposal systems, the applicant shall submit a septic system design prepared by a certified engineer and approved by the Board of Health and a plan illustrating the location of water supply wells with the special permit application. No community septic system serving the development shall exceed sewage flow of 2,000 gallons per day. Septic

systems shall be placed in the development to maximize the distance between systems and shall be placed within common areas rather than on individual lots. Maintenance of community septic systems shall be the responsibility of the community association specified in Section 1.08.

- 1.043 No open space community development served by on-site waste disposal systems shall be approved unless the applicant can demonstrate to the satisfaction of the Planning Board that the potential for groundwater pollution is no greater from the proposed open space community development than would be expected from a conventional subdivision with single family houses on lots meeting the normal lot size requirements located on the same parcel. Where necessary, the Planning Board may hire a Professional Engineer to analyze and certify groundwater quality impacts, and may charge the applicant for the cost of such analysis.

1.05 Dimensional and Density Requirements

- 1.051 A one-family detached dwelling, or lawful accessory building, may be constructed on a lot within an Open Space Community development although such lot has less area and frontage than normally required, as herein specified.
- 1.052 The maximum number of dwelling units permitted in an open space community shall be calculated based upon (the minimum lot size normally required in the district, i.e., one unit per acre) for the net developable acreage remaining once the area of all wetlands and all areas unsuitable for on-site sewage disposal have been subtracted from the total acreage of the property.
- 1.053 Under the supervision of the Conservation Commission and in accordance with the provisions of the Wetlands Protection Act, M.G.L. Ch. 131, Sec. 40, all wetlands shall be identified, and their area subtracted from the net developable acreage of the total parcel.
- 1.054 Under the supervision of the Board of Health, and in conformance with Title V, percolation tests shall be conducted for all lots in the total acreage of the property which would be developed in a standard subdivision layout. The area of those lots which is determined to be not suitable for on-site sewage disposal shall be subtracted from net developable acreage of the total parcel.
- 1.055 Lot sizes in a cluster development shall not be less than (one-half (50%) of the minimum lot size normally required in the district, i.e., twenty thousand (20,000) square feet per lot).
- 1.056 In no instance shall a designated lot have less than 100 feet of frontage on a public or private way.
- 1.057 Minimum front, rear, and side yard setbacks shall be the same as normally required in the district.
- 1.058 All residential structures and accessory uses within the development shall be set back from the boundaries of the development by a buffer strip of at least fifty (50) feet in width which shall include trees and shall be kept in a natural of landscaped condition.

1.06 Common Open Space Requirements

- 1.061 All land not devoted to dwellings, accessory uses, roads, or other development shall be set aside as common land for recreation, conservation, or agricultural uses which preserve the land in essentially its natural condition.
- 1.062 The total area of common open space shall equal or exceed the area by which all single-family dwelling lots are reduced below the basic minimum lot area normally required in the zoning district.
- 1.063 The following lands shall not be used to meet the common open space requirements:
- a. Lands within the floodplain district;
 - b. Lands identified as wetlands in accordance with the Massachusetts Wetlands Protection Act;
 - c. Lands with slopes greater than twenty-five percent (25%).
- 1.064 Further subdivision of common open land or its use for other than recreation, conservation, or agriculture, except for easements for underground utilities and septic systems, shall be prohibited. Structures or buildings accessory to recreation, conservation, or agricultural uses may be erected but shall not exceed 5% coverage of such common open land.

1.07 Common Open Space Ownership

1.071 All common open land shall be either:

- a. conveyed to a community association owned or to be owned by the owners of lots within the development. If such a community association is utilized, ownership thereof shall pass with conveyances of the lots in perpetuity;
- b. conveyed to a non-profit organization, the principal purpose of which is the conservation or preservation of open space;
- c. conveyed to the Town, at no cost, and be accepted by it for a park or open space use. Such conveyance shall be at the option of the Town and shall require the approval of the voters at a Town Meeting.
- d. If the parcel is located in an agricultural district, farmland owners are not required to sell the part of their property which is to become permanent agricultural open space, provided that they convey the development rights of that open space in a conservation easement prohibiting future development of the property in accordance with Section 1.071 (a - c).

1.072 In any case where such land is not conveyed to the Town, a restriction enforceable by the Town shall be recorded to ensure that such land shall be kept in an open or natural state and not be built for residential use or developed for accessory uses such as parking or roadways. Such restrictions shall further provide for maintenance for the common land in a manner which will ensure its suitability for its function, appearance, cleanliness, and proper maintenance of drainage, utilities, and the like.

1.08 Community Association

1.081 A non-profit, incorporated community association shall be established, requiring membership of each lot owner in the open space community. The community association shall be responsible for the permanent maintenance of all communal water and septic systems, common open space, recreational and thoroughfare facilities. A community association agreement of covenant shall be submitted with the special permit/site plan approval application guaranteeing continuing maintenance of such common utilities, land and facilities, and assessing each lot a share of maintenance expenses. Such agreement shall be subject to the review and approval of Town Counsel and the Planning Board.

1.082 Such agreements or covenants shall provide that in the event that the association fails to maintain the common open land in reasonable order and condition in accordance with the agreement, the Town may, after notice to the association and public hearing, enter upon such land and maintain it in order to preserve the taxable values of the properties within the development and to prevent the common land from becoming a public nuisance. The covenants shall also provide that the cost of such maintenance by the Town shall be assessed ratably against the properties within the development.

1.09 Procedures and Pre-Application Review

1.091 Applicants for Open Space Communities shall follow the Special Permit procedures specified in Section _____ and the Site Plan Approval procedures specified in Section _____.

1.092 To promote better communication and to avoid misunderstanding, applicants are encouraged to submit a Preliminary Plan for review by the Planning Board prior to the application for a special permit. Such Preliminary Plans shall comply with the Town's Subdivision Control Regulations.

1.093 The Planning Board approval of a special permit hereunder shall not substitute for compliance with the Subdivision Control Act nor oblige the Planning Board to approve a related Definitive Plan for subdivision, nor reduce any time periods for Board consideration under that law. However, in order to facilitate processing, the Planning Board shall, insofar as practical under law, adopt regulations establishing procedures for submission of a combined Special Permit application/Subdivision Plan which shall satisfy the Board's regulations under the Subdivision Control Act.

1.094 A Site Plan/Development Plan shall be submitted to the Planning Board with the application for a special permit. Following approval of the special permit, a Definitive Plan shall be submitted to the Planning Board consistent with their Subdivision Regulations and in substantial conformity with the approved Site Plan/Development Plan, except where the Cluster Development does not constitute a subdivision under the Subdivision Control Law.

MODEL MULTI-FAMILY RESIDENTIAL ZONING BYLAW

(Based upon a zoning bylaw adopted by the Town of Granby, MA)

B-2 MULTI-FAMILY RESIDENTIAL DWELLINGS

2.00 Multi-family Dwellings By Special Permit

Multi-family dwellings shall be permitted in the (specify districts) districts only upon issuance of a Special Permit with Site Plan Approval from the Planning Board as specified in (Special Permit and Site Plan Approval requirements) of this bylaw, and in accordance with the additional requirements specified herein.

2.01 Definitions

- a. Dwelling, Multi-family -- A building containing more than one but not more than six dwelling units with each unit containing its own sleeping, cooking and sanitary facilities.

2.02 Dimensional Requirements

- 2.021 All multi-family dwellings which shall be connected to public sewer and water facilities shall conform to the following dimensional requirements:

Min. Lot.Size Per Dwelling	Max. No. of Dwell- Units Per Structure	Min. Frontage Per Dwelling Unit	Min. Front Yard	Min. Side Yard	Min. Rear Yard	Max. Height	Max. No. of Stories	Max Lot Coverage
10,000	6	80	30	30	30	35	2	30%

- 2.022 All multi-family dwellings which shall be connected to on-site sewerage disposal and water systems shall conform to the following dimensional requirements:

Min. Lot.Size Per Dwelling	Max. No. of Dwell- Units Per Structure	Min. Frontage Per Dwelling Unit	Min. Front Yard	Min. Side Yard	Min. Rear Yard	Max. Height	Max. No. of Stories	Max Lot Coverage
40,000	6	100	75	75	50	35	2	30%

2.03 Additional Requirements

The following standards shall be used as additional requirements in the special permit/site plan approval process for all multi-family dwellings:

2.031 Siting and Layout Requirements

- a. The development shall be integrated into the existing terrain and surrounding landscape, and shall be designed to protect abutting properties and community amenities. Building sites shall, to the extent feasible: (a) minimize use of wetlands, steep slopes, floodplains, hilltops; (b) minimize obstruction of scenic views from publicly accessible locations; (c) preserve unique natural or historical features; (d) minimize tree, vegetation and soil removal and grade changes; and (e) maximize open space retention; and (f) screen objectionable features from neighboring properties and roadways.
- b. More than one multi-family dwelling may be placed on a lot, but no principal structures shall be placed closer to each other than 50 feet and must be visually separated by trees and plantings.

In addition, each multi-family dwelling must be provided with access, drainage and utilities functionally equivalent to that provided under the Planning Board's Subdivision Rules and Regulations.

2.032 Design Requirements

- a. Architectural style shall be in harmony with the prevailing character and scale of buildings in the neighborhood and the Town through the use of appropriate building materials, screening, breaks in roof and wall lines and other architectural techniques. Variation in detail, form and siting shall be used to provide visual interest and avoid monotony. Proposed buildings shall relate harmoniously to each other with adequate light, air, circulation, and separation between buildings.

2.033 Vehicular and Pedestrian Access Requirements

- a. The plan shall maximize the convenience and safety of vehicular and pedestrian movement within the site and in relation to adjacent ways.
- b. Multi-family structures shall have access on roads having sufficient width, suitable grades, and adequate construction to provide for the needs of vehicular traffic generated by the site.
- c. Connecting walkways with tree belts shall be provided between structures and parking areas within the site and shall be constructed in accordance with the standards set forth in the (town) Subdivision Regulations.

2.034 Open Space and Buffer Area Requirements

- a. All land not devoted to dwellings, accessory uses, roads, or other development shall be permanently reserved as open space. All open space lands shall be permanently protected by the donation of a conservation restriction to the Town of (town) duly recorded on the property deed. A minimum of 50% of land reserved as open space shall be grassed or landscaped land available for active and passive recreation.
- b. Multi-family structures shall be separated from adjacent properties by buffer strips consisting of trees and/or fencing sufficient to minimize the visual and noise impacts of the development.

2.035 Parking, Loading, and Lighting Requirements

- a. Parking areas shall not be located within a required front, rear, or side yard as specified in Section 2.02 and shall be screened from public ways and adjacent or abutting properties by building location, fencing, or planting. No individual parking area shall contain more than fourteen (14) spaces. Two parking spaces shall be provided for each dwelling unit. One additional space for visitor parking shall be provided for every ten resident parking spaces. No parking shall be allowed on interior streets.
- b. Exposed storage areas, machinery, service areas, truck loading areas, utility buildings and structures and other unsightly uses shall be set back or screened to protect the neighbors from objectionable features.
- c. No building shall be floodlit. Drives and parking areas shall be illuminated only by shielded lights not higher than fifteen (15) feet.

2.036 Water Supply and Sewerage Requirements

- a. The development shall be served with adequate water supply and waste disposal systems, and shall not place excessive demands on municipal infrastructure.
- b. The following additional utility requirements shall apply to all multi-family dwellings which are served by on-site sewerage or water supply systems:
 1. For dwellings to be served by on-site water and waste disposal systems, the applicant shall submit a septic system design prepared by a certified engineer and approved by the Board of Health and a plan illustrating the location of water supply wells with the special permit

application. No septic system serving the project shall exceed 2,000 gallons per day sewage flow. More than one septic may serve the site in order to meet this requirement.

2. Dwellings with on-site waste disposal systems shall be allowed only upon demonstration by the applicant that the groundwater quality of the boundaries of the lot will not fall below the standards established by the Massachusetts Department of Environmental Quality Engineering in Drinking Water Standards of Massachusetts," or by the U.S. Environmental Protection Agency in "National Interim Primary Drinking Water Regulations," or where groundwater quality is already below these standards, upon determination that the activity will result in no further degradation. Where compliance is in doubt, the Planning Board may hire a Professional Engineer to analyze and certify groundwater quality impacts, and may charge the applicant for the cost of such analysis.
3. The required minimum lot size per dwelling unit specified in Section 2.022 may be reduced by a maximum of fifty percent (50%) provided that the applicant can demonstrate to the Planning Board's satisfaction that the site and soil conditions will permit such increased density of on-site waste disposal systems without violation of the drinking water standards described in Section 2.036 above.

2.037 Drainage Requirements

- a. Drainage shall be designed so that run-off shall not be increased, groundwater recharge is maximized, and neighboring properties will not be adversely affected.

2.038 Utility Requirements

- a. Electric, telephone, cable TV, and other such utilities shall be underground where physically and environmentally feasible.

2.04 Community Association

- 2.041 If a multi-family development is owned by more than one person or converted to ownership of more than one person, a non-profit, incorporated community association shall be established, requiring membership of each property owner in the development. The community association shall be responsible for the permanent maintenance of all communal water and septic systems, common open space, recreational and thoroughfare facilities. A community association agreement of covenant shall be submitted with the special permit/site plan approval application guaranteeing continuing maintenance of such common utilities, land and facilities, and assessing each lot a share of maintenance expenses. Such agreement shall be subject to the review and approval of Town Counsel and the Planning Board.
- 2.042 Such agreements or covenants shall provide that in the event that the association fails to maintain the common open land in reasonable order and condition in accordance with the agreement, the Town may, after notice to the association and public hearing, enter upon such land and maintain it in order to preserve the taxable values of the properties within the development and to prevent the common land from becoming a public nuisance. The covenants shall also provide that the cost of such maintenance by the Town shall be assessed ratably against the properties within the development.

MODEL INCLUSIONARY ZONING BYLAW FOR PLANNED UNIT RESIDENTIAL DEVELOPMENT

(Model zoning bylaw developed by the Pioneer Valley Planning
Commission)

B-3 INCLUSIONARY ZONING FOR PLANNED UNIT RESIDENTIAL DEVELOPMENT

3.00 Uses Allowed By Special Permit

Planned Unit Residential Developments shall be permitted in the _____ Districts only upon issuance of a Special Permit with Site Plan Approval from the Planning Board as specified in Sections _____ of this bylaw.

3.01 General Description

A "Planned Unit Residential Development" shall mean a development containing a mixture of residential uses and building types, including single family dwellings, townhouses, two-family dwellings or multi-family dwellings, and open space. A planned unit residential development may be allowed by special permit to exceed the normal density requirements for the district to the extent authorized by this bylaw provided that standards for the permanent protection of open space, the provision of affordable housing, and other standards specified herein are met.

3.02 Purposes

The purposes of this Planned Unit Residential Development bylaw are to:

- a. allow for greater variety and flexibility in the development of housing types;
- b. promote the permanent preservation of open space;
- c. facilitate the construction and maintenance of streets, utilities and public services in a more economical and efficient manner;
- d. maintain and replicate the traditional New England rural character and land use pattern in which small villages are adjacent to common open space.

3.03 Permitted Uses

All uses normally permitted in the _____ Districts shall remain permitted uses.

3.04 Uses Allowed by Special Permit

In a Planned Unit Residential Development, the following uses may be allowed by Special Permit:

- a. Single family dwellings;
- b. Two-family dwellings;
- c. Townhouses - single family dwellings connected by one or more common walls;
- d. Multi-family dwellings;
- e. Recreational uses and open space.

3.05 Density and Dimensional Regulations

If the proposed project complies with the affordable housing requirements specified in Section _____, the following density and dimensional requirements may be substituted for those requirements normally required in the district:

- a. The minimum lot size for all dwelling units shall be 10,000 square feet.
- b. The minimum total land area for a Planned Unit Residential Development shall be ten (10) acres.
- c. There shall be no frontage requirements within the Planned Unit Residential Development.
- d. The maximum height of structures shall be 2 stories or 35 feet.
- e. Minimum setback, rear and side yard requirements specified in the (Table of Dimensional Requirements) shall pertain only to the periphery of the Planned Unit Residential Development.

3.06 Utility Requirements

All structures which require plumbing shall be connected to a public sanitary sewer and public water system.

3.07 Parking and Circulation Requirements

- a. A minimum of two parking spaces per dwelling unit shall be required, which may include garages.
- b. There shall be an adequate, safe, and convenient arrangement of pedestrian circulation, facilities, roadways, driveways, and parking.

3.08 Landscaping and Buffer Area Requirements

- a. A coordinated landscape design for the entire project area, including landscaping of structures, parking areas, driveways and walkways, shall be submitted for approval by the Planning Board, and shall be subsequent to such approval, implemented.
- b. Whenever possible, existing trees and vegetative cover shall be conserved and integrated into the landscape design.
- c. All residential structures and accessory uses within the development shall be set back from the boundaries of the development by a buffer strip of at least fifty (50) feet in width which shall include trees and shall be kept in a natural or landscaped condition.

3.09 Affordable Housing Requirements

- 3.091 Whenever an application is made under this section for a Special Permit from the Planning Board for a Planned Unit Residential Development, the Planning Board shall require as a condition of the grant of a Special Permit the provision within the development of affordable housing units amounting to ten (10%) percent of the development's total number of dwelling units.
- 3.092 The affordable housing units to be provided shall be compatible with and equivalent in exterior architectural design to other units within the development.
- 3.093 The distribution of unit sizes (i.e., number of bedrooms) and determination of occupancy characteristics (i.e., elderly or family) shall be made by the Planning Board at the time of granting the Special Permit.

3.10 Target Population for Affordable Housing Units

- 3.101 Affordable housing units are those which may be purchased by families with incomes less than 100% of the median income for the (SMSA name) Standard Metropolitan Statistical Area, and whose expenditure for housing costs does not exceed 30% of the gross annual income of the owner. Housing costs for affordable housing units shall be calculated based upon current available mortgage interest rates, a 30-year mortgage term, and a 10% down payment. Adjustments must be made according to the number of persons in the household. The maximum sale price for the affordable housing units shall be based upon these housing cost calculations.
- 3.102 The median income for the SMSA shall be established by the U.S. Department of Housing and Urban Development median gross family income data, as annually updated.
- 3.103 The selection of qualified buyers for the affordable units shall be administered by the ____ (town) Housing Authority. The selection from a pool of prospective buyers meeting the established income guidelines shall be based upon the following criteria:
 - a. Priority consideration shall be given to households not currently owning a home;
 - b. Priority consideration shall be given to prospective owner-occupants of the affordable units to be sold.

3.11 Preservation of Affordability

- 3.111 In order to ensure equity and continued affordability, affordable housing units within the PURD shall be subject to resale controls administered by the ____ (town) Housing Authority. Affordable housing units shall be subject to a deed restriction which shall establish the procedure for determining the maximum resale price of the unit as follows:
 - a. At the time of initial sale of the affordable unit, the Housing Authority shall arrange for a real estate appraisal to be made the costs to borne by the seller to determine the market value of the

unit. The sale price divided by the market value of the unit shall equal the discount rate. The discount rate shall be recorded on the deed and mortgage documents.

- b. When the unit is resold, a real estate appraisal shall again be conducted to determine the market value of the unit. The market value shall be multiplied by the discount rate established on the deed to determine the maximum resale price.
- c. The deed shall contain the following language: "No deed shall be valid to convey good title, unless it is accompanied by the certificate of the Housing Authority, which after having made at least one appraisal thereof, certifies the full market value of the property, and further state the maximum consideration to be permitted on the deed."

3.112 At the time of resale of an affordable housing unit, the _____ (town) _____ Housing Authority shall notify qualifying households on their waiting list of the availability of the unit, immediately after determining the resale price.

3.113 Those families so notified shall have exclusive right to contract for the unit, for a period of sixty days.

3.114 If no contract has been entered into with any party at the end of sixty days, the owner of the unit may offer the unit to the general public at the price determined by the deed restriction.

3.12 Common Open Space Requirements

- a. All land not devoted to dwellings, accessory uses, roads, or other development shall be set aside as common land for recreation, conservation, or agricultural uses which preserve the land in essentially its natural condition.
- b. Further subdivision of common open land or its use for other than recreation, conservation, or agricultural, except for easements for underground utilities, shall be prohibited. Structures or buildings accessory to recreation, conservation, or agricultural uses may be erected but shall not exceed 5% coverage of such common open land.

3.13 Common Open Space Ownership

3.131 All common open land shall be either:

- a. conveyed to a community association owned or to be owned by the owners of lots within the development. If such a community association is utilized, ownership thereof shall pass with conveyances of the lots in perpetuity;
- b. conveyed to a non-profit organization, the principal purpose of which is the conservation or preservation of open space;
- c. conveyed to the Town, at no cost, and be accepted by it for a park or open space use. Such conveyance shall be at the option of the Town and shall require the approval of the voters at a Town Meeting.
- d. owners are not required to sell the part of their property which is to become permanent open space, provided that they convey to the Town the development rights of that open space in a conservation easement prohibiting future development of the property.

3.132 In any case where such land is not conveyed to the Town, a restriction enforceable by the Town shall be recorded to ensure that such land shall be kept in an open or natural state and not be built for residential use or developed for accessory uses such as parking or roadways. Such restrictions shall further provide for maintenance of the common land in a manner which will ensure its suitability for its function, appearance, cleanliness, and proper maintenance of drainage, utilities and the like.

3.14 Community Association

3.141 A non-profit, incorporated community association shall be established, requiring membership of each lot owner in the planned unit development. The community association shall be responsible for the permanent maintenance of all communal water and sewerage systems, common open space, recreational and thoroughfare facilities. A community association agreement of covenant shall be submitted with the special permit/site plan approval application guaranteeing continuing maintenance of such common utilities, land and facilities, and assessing each lot a share of maintenance expenses. Such agreement shall be subject to the review and approval of Town Counsel and the Planning Board.

3.142 Such agreements or covenants shall provide that in the event that the association fails to maintain the common open land in reasonable order and condition in accordance with the agreement, the Town may, after notice to the association and public hearing, enter upon such land and maintain it in order to preserve the taxable values of the properties within the development and to prevent the common land from becoming a public nuisance. The covenants shall also provide that the cost of such maintenance by the Town shall be assess ratably against the properties within the development.

3.15 Procedures and Pre-Application Review

3.151 Applicants for Planned Unit Residential Development shall follow the Special Permit procedures specified in Section _____.

3.152 To promote better communication and to avoid misunderstanding, applicants are encouraged to submit a Preliminary Plan for review by the Planning Board prior to the application for a special permit. Such Preliminary Plans shall comply with the Town's Subdivision Control Regulations.

3.153 The Planning Board approval of a special permit hereunder shall not substitute for compliance with the Subdivision Control Act nor oblige the Planning Board to approve a related Definitive Plan for subdivision, nor reduce any time periods for Board consideration under that law. However, in order to facilitate processing, the Planning Board shall, insofar as practical under law, adopt regulations establishing procedures for submission of a combined Special Permit application/Subdivision Plan which shall satisfy the Board's regulations under the Subdivision Control Act.

MODEL BYLAW FOR ELDERLY AND HANDICAPPED CONGREGATE RESIDENTIAL ZONING

(Based upon a zoning bylaws adopted by the Town of Whately,
Massachusetts
and the Town of Granby, Massachusetts)

B-4 ELDERLY AND HANDICAPPED CONGREGATE HOUSING

4.00 Elderly and Handicapped Congregate Housing By Special Permit

Congregate elderly or handicapped dwelling units shall be permitted in the (specify district) districts only upon issuance of a Special with Site Plan Approval from the Planning Board, as specified in (Special Permit and Site Plan Approval Requirements) of this bylaw, and in accordance with the additional requirements specified herein.

4.01 Definitions

Congregate Elderly and Handicapped Housing -- A building or buildings arranged or used for the residence of persons age fifty-five (55) or older, or for handicapped persons, as defined in Chapter 121B of the M.G.L., with some shared facilities and services.

4.02 Dimensional Requirements

- 4.021 All congregate dwelling units which shall be connected to public sewer and water facilities shall conform to the following dimensional requirements:

Min. Lot Size Per Dwelling	Max. No. of Dwel- Units Per Structure	Min. Frontage Per Dwelling Unit	Min. Front Yard	Min. Side Yard	Min. Rear Yard	Max. Height	Max. No. of Stories	Max Lot Coverage
10,000	6	80	30	30	30	35	2	30%

- 4.022 All congregate dwelling units which shall be connected to on-site sewerage disposal and water systems shall conform to the following dimensional requirements:

Min. Lot Size Per Dwelling	Max. No. of Dwel- Units Per Structure	Min. Frontage Per Dwelling Unit	Min. Front Yard	Min. Side Yard	Min. Rear Yard	Max. Height	Max. No. of Stories	Max Lot Coverage
40,000	6	100	75	75	50	35	2	30%

4.03 Additional Requirements

The following standards shall be used as additional requirements in the special permit/site plan approval process for all congregate dwelling units:

4.031 Siting and Layout Requirements

- a. The development shall be integrated into the existing terrain and surrounding landscape, and shall be designed to protect abutting properties and community amenities. Building sites shall, to the extent feasible: (a) minimize use of wetlands, steep slopes, floodplains, hilltops; (b) minimize obstruction of scenic views from publicly accessible locations; (c) preserve unique natural or historical features; (d) minimize tree, vegetation and soil removal and grade changes; and (e) maximize open space retention; and (f) screen objectionable features from neighboring properties and roadways.
- b. More than one dwelling may be placed on a lot, but no principal structures shall be placed closer to each other than 50 feet and must be visually separated by trees and plantings. In addition, each dwelling must be provided with access, drainage and utilities functionally equivalent to that provided under the Planning Board's Subdivision Rules and Regulations.

4.032 Design Requirements

- a. Architectural style shall be in harmony with the prevailing character and scale of buildings in the neighborhood and the Town through the use of appropriate building materials, screening, breaks in roof and wall lines and other architectural techniques. Variation in detail, form and siting shall be used to provide visual interest and avoid monotony. Proposed buildings shall relate harmoniously to each other with adequate light, air, circulation, and separation between buildings.

4.033 Vehicular and Pedestrian Access Requirements

- a. The plan shall maximize the convenience and safety of vehicular and pedestrian movement within the site and in relation to adjacent ways.
- b. Congregate structures shall have access on roads having sufficient width, suitable grades, and adequate construction to provide for the needs of vehicular traffic generated by the site.
- c. Connecting walkways with tree belts shall be provided between structures and parking areas within the site and shall be constructed in accordance with the standards set forth in the (town) Subdivision Regulations.

4.034 Open Space and Buffer Area Requirements

- a. All land not devoted to dwellings, accessory uses, roads, or other development shall be permanently reserved as open space. All open space lands shall be permanently protected by the donation of a conservation restriction to the Town of (town) duly recorded on the property deed. A minimum of 50% of land reserved as open space shall be grassed or landscaped land available for active and passive recreation.
- b. Congregate structures shall be separated from adjacent properties by buffer strips consisting of trees and/or fencing sufficient to minimize the visual and noise impacts of the development.

4.035 Parking, Loading, and Lighting Requirements

- a. Parking areas shall not be located within a required front, rear, or side yard as specified in Section 4.02 and shall be screened from public ways and adjacent or abutting properties by building location, fencing, or planting. No individual parking area shall contain more than fourteen (14) spaces. Two parking spaces shall be provided for each dwelling unit. One additional space for visitor parking shall be provided for every ten resident parking spaces. No parking shall be allowed on interior streets.
- b. Exposed storage areas, machinery, service areas, truck loading areas, utility buildings and structures and other unsightly uses shall be set back or screened to protect the neighbors from objectionable features.
- c. No building shall be floodlit. Drives and parking areas shall be illuminated only by shielded lights not higher than fifteen (15) feet.

4.036 Water Supply and Sewerage Requirements

- a. The development shall be served with adequate water supply and waste disposal systems, and shall not place excessive demands on municipal infrastructure.
- b. The following additional utility requirements shall apply to all elderly and handicapped congregate dwelling units which are served by on-site sewerage or water supply systems:
 - 1. For dwellings to be served by on-site water and waste disposal systems, the applicant shall submit a septic system design prepared by a certified engineer and approved by the Board of Health and a plan illustrating the location of water supply wells with the special permit application. No septic system serving the project shall exceed 2,000 gallons per day sewage flow. More than one septic may serve the site in order to meet this requirement.
 - 2. Dwellings with on-site waste disposal systems shall be allowed only upon demonstration by the applicant that the groundwater quality of the boundaries of the lot will not fall below the standards established by the Massachusetts Department of Environmental Quality Engineering in Drinking Water Standards of Massachusetts," or by the U.S. Environmental Protection Agency in "National Interim Primary Drinking Water Regulations," or where groundwater quality is already below these standards, upon determination that the activity will result in no further degradation. Where compliance is in doubt, the Planning Board may hire a Professional Engineer to analyze and certify groundwater quality impacts, and may charge the applicant for the cost of such analysis.
 - 3. The required minimum lot size per dwelling unit specified in Section 4.022 may be reduced by a maximum of fifty percent (50%) provided that the applicant can demonstrate to the Planning Board's satisfaction that the site and soil conditions will permit such increased density of on-site waste disposal systems without violation of the drinking water standards described in Section 4.042 above.

4.037 Drainage Requirements

- a. Drainage shall be designed so that run-off shall not be increased, groundwater recharge is maximized, and neighboring properties will not be adversely affected.

4.038 Utility Requirements

- a. Electric, telephone, cable TV, and other such utilities shall be underground where physically and environmentally feasible.

4.04 Community Association

- 4.041 If an elderly and handicapped congregate development is owned by more than one person or converted to ownership of more than one person, a non-profit, incorporated community association shall be established, requiring membership of each property owner in the development. The community association shall be responsible for the permanent maintenance of all communal water and septic systems, common open space, recreational and thoroughfare facilities. A community association agreement of covenant shall be submitted with the special permit/site plan approval application guaranteeing continuing maintenance of such common utilities, land and facilities, and assessing each lot a share of maintenance expenses. Such agreement shall be subject to the review and approval of Town Counsel and the Planning Board.
- 4.042 Such agreements or covenants shall provide that in the event that the association fails to maintain the common open land in reasonable order and condition in accordance with the agreement, the Town may, after notice to the association and public hearing, enter upon such land and maintain it in order to preserve the taxable values of the properties within the development and to prevent the common land from becoming a public nuisance. The covenants shall also provide that the cost of such maintenance by the Town shall be assessed ratably against the properties within the development.

MODEL ZONING BYLAW FOR ACCESSORY APARTMENTS
**(Model zoning bylaw developed by the Pioneer Valley Planning
Commission)**

B-5 ACCESSORY APARTMENT

5.00 Definition

An accessory apartment is a separate housekeeping unit, complete with its own sleeping, cooking, and sanitary facilities, that is substantially contained within the structure of a single-family dwelling, but functions as a separate unit.

5.01 Purpose

The purposes of the accessory apartment bylaw are to:

- a. Provide an opportunity for older homeowners who can no longer physically or financially maintain their single-family home to remain in homes they might otherwise be forced to leave;
- b. Make housing units available to moderate-income households who might otherwise have difficulty finding homes with the town;
- c. Provide a variety of types of housing to meet the needs of its residents;
- d. Protect stability, property values, and the single-family residential character of a neighborhood; and
- e. Legalize conversions to encourage the Town to monitor conversions for code compliance.

5.02 Special Permit Procedures and Conditions

5.021 The Planning Board may authorize an accessory apartment by Special Permit in any residential districts, provided that the following standards and criteria are met:

- a. The apartment will be a complete, separate housekeeping unit that functions as a separate unit from the original unit.
- b. Only one apartment will be created within a single-family house.
- c. The lot in which the single-family house is located must have a minimum lot size of ten thousand (10,000) square feet, must comply with other applicable zoning requirements for its district, and must be serviced by public water and sewer facilities.
- d. The accessory apartment shall be designed so that the appearance of the building remains that of a one-family residence as much as feasibly possible. In general, any new entrances shall be located on the side or rear of the building.
- e. The accessory apartment shall be clearly a subordinate part of the single-family dwelling. It shall be no greater than seven hundred (700) square feet nor have more than two (2) bedrooms.
- f. At least three off-street parking spaces are available for use by the owner-occupant(s) and tenant(s).
- g. The construction of any accessory apartment must be in conformity with State Building Code requirements.

5.03 Application Procedure

5.031 The procedure for the submission and approval of a Special Permit for an Accessory Apartment in Owner-Occupied, Single-Family Dwelling shall be the same as prescribed in the Special Permit Section by the Planning Board except it shall include a notarized letter of application from the owner(s) stating that he/they will occupy one of the dwelling units on the premises.

5.032 Upon receiving a special permit the owner(s) must file on subject property a Declaration of Covenants at the _____ County Registry of Deeds. The Declaration shall state that the right to rent a temporary accessory apartment ceases upon transfer of title. A time-stamped copy of the recorded Declaration shall be provided to the Planning Board.

5.033 In order to provide for the development of housing units for disabled and handicapped individuals, the Planning Board will allow reasonable deviation from the state conditions where necessary to install features that facilitate access and mobility for disabled persons.

5.04 Transfer of Ownership of a Dwelling with an Accessory Apartment

5.041 The temporary special permit for an accessory apartment in a single-family dwelling shall terminate upon the sale of property or transfer of title of the dwelling.

5.042 The new owner(s) must apply for reapproval of a special permit for an accessory apartment and shall submit a written request to the Planning Board, stating that conditions at the time of the original application remain unchanged. Minor changes may be approved without a hearing by the Planning Board. The Planning Board in its sole discretion, at the time of reapplication by a new owner, may require compliance with all the procedures in Section 5.04.

5.043 Upon receiving a special permit, the new owner(s) must file on subject property a Declaration of Covenants at the _____ County Registry of Deeds. The Declaration shall state that the right to rent a temporary accessory apartment ceases upon transfer of title. A time-stamped copy of the recorded Declaration shall be provided to the Planning Board.

5.05 Accessory Apartments in Existence Before the Adoption of an Accessory Apartment Bylaw

5.051 Statement of Intent

To ensure that accessory apartments or conversions in existence before the adoption of this Accessory Apartment Bylaw are in compliance with the State Building Code Regulations.

5.052 Application Procedure

- a. The Planning Board may authorize, under a special permit and in conjunction with the Building Inspector, an accessory apartment. The Board will review each existing use on a case-by-case basis to determine if the dwelling conforms to State Building Code Regulations.
- b. The applicant must follow the same procedure described in Section 5.04 including the submission of a notarized letter declaring owner occupancy and a Declaration of Covenants.
- c. A fee shall be levied in accordance with Section ____ - Zoning Enforcement, if the owner fails to apply to the Planning Board for a Special Permit for an Accessory Apartment.

5.06 Fees

A non-refundable fee, in the amount of \$ ____ shall be included with the application for an accessory apartment to cover costs of processing the application and code inspections. Applicant shall also be responsible for the cost of legal notices.

C. STRATEGIES TO PRESERVE COMMUNITY CHARACTER AND OPEN SPACE



MODEL AGRICULTURAL PRESERVATION ZONING BYLAW

(Based upon a bylaw adopted by the Town of Granby, Massachusetts)

C-1 AGRICULTURAL PRESERVATION DISTRICT

1.00 Purpose

The purposes of the Agricultural Preservation District are to :

- a. Protect prime agricultural lands for future food production;
- b. Maintain an adequate agricultural land base in (town) to ensure continued economic viability for local agriculture and the availability of agricultural support services;
- c. Promote adequate and efficient provision of public services by preventing unplanned urban growth in areas more appropriate for agriculture;
- d. Preserve scenic, historic and other farming-related values which help define the character of (town) culture and landscape;
- e. Allow landowners a reasonable return on the value of their holdings while protecting the majority of existing farmland for use by future generations;
- f. Promote and protect the practice of farming in (town).

1.01 District Delineation

The Agricultural Preservation District is defined as all lands designated on the map entitled "Agricultural Preservation District, Town of (town)", on file with the Town Clerk.

1.02 Permitted Uses

- a. Agricultural production, including raising of crops, livestock, poultry, nurseries, orchards, hay;
- b. Normal agricultural practices, including but not limited to manure storage, farm machine operation, and fertilizer and pesticide use as regulated by state and federal law;
- c. Uses accessory to farm operations, including greenhouses, farm animal veterinary facilities, agricultural processing, and storage facilities;
- d. Farm-related dwelling units owned and occupied by persons actively engaged in farming;
- e. Single family homes on frontage lots not requiring approval under the Massachusetts Subdivision Control Law, M.G.L., Ch. 41, which comply with the Site Design standards in Section 1.06 and other dimensional requirements of this bylaw.

- 1.03 Uses Permitted With Site Plan Approval
All residential subdivisions in the Agricultural Preservation District which require approval under M.G.L., Ch. 41 shall be laid out in accordance with the Cluster Development Standards in Section 1.07 and the Site Design Standards in Section 1.06 of this bylaw, and shall require Site Plan Approval from the Planning Board. All applicants for Site Plan Approval shall comply with Section ____ of this bylaw.
- 1.04 Additional Requirements for Site Plan Approval
The applicant shall comply with the minimum requirements for site plan contents in Section ____ of this bylaw, and shall also submit to the Planning Board the following information:
- a. Description or illustration of the physical characteristics within and adjacent to this site, including: prime agricultural soils, soils of state and local importance, other soils and soil characteristics, areas used for crop or other agricultural production.
 - b. Description of compliance with Cluster Development Standards in Section 1.07 and Site Design Standards in Section 1.06.
- 1.05 Criteria for Review
In addition to the Site Plan Approval criterion contained in Section ____ the Planning Board shall also consider the following criteria:
- a. is in compliance with Cluster Development Standards in Section 1.07;
 - b. will not interfere with farming operations on adjacent lands;
 - c. is situated on the portion of the site with soils least suitable for the production of crops or livestock;
 - d. is integrated into the existing landscape through features such as vegetative buffers, and through retention of open agricultural land.
- 1.06 Site Design Standards
These standards shall apply to subdivisions requiring approval under Chapter 41 and to lots or subdivisions not requiring approval under Chapter 41:
- a. All buildings, homes, and structures shall be located a minimum of 100 feet from agricultural land and shall be separated by a 50-foot wide buffer strip of trees and fencing sufficient to minimize conflicts between farming operations and residences.
 - b. Each structure shall be integrated into the existing landscape on the property so as to minimize its visual impact and maintain visibility of adjacent agricultural lands from public ways through use of vegetative and structural screening, landscaping, grading, and placement on or into the surface of the lot.
- 1.07 Cluster Development Standards
Residential subdivision developments in the Agricultural Preservation District shall be laid out according to the cluster development standards contained herein. Single-family detached dwellings, or lawful accessory buildings, in a cluster development may be constructed on lots which have less area or frontage than normally required in the underlying district, as herein specified.
- 1.071 All buildings and roads shall be located away from soils which are most suitable for agriculture (based on U.S. Soil Conservation Service classifications for prime farmland soils and soils of state and local importance) to the maximum practical extent. This provision does not apply to the location of on-site septic disposal facilities which must be placed in soils meeting the Massachusetts Environmental Code.
- 1.072 All roads, drainage systems and utilities shall be laid out in a manner so as to have the least possible impact on agricultural lands and uses.
- 1.073 The minimum lot size for any cluster development lot shall be 20,000 square feet. The minimum frontage for such lots shall be 100 feet. All other dimensional requirements shall be the same as normally required in the district.
- 1.074 The maximum number of dwelling units permitted in a residential cluster development shall be calculated according to the following procedures:

- a. The maximum number of dwelling units permitted on a parcel of land shall be determined based upon one unit per acre for the net developable acreage remaining once the area of all wetlands and all areas unsuitable for on-site sewage disposal have been subtracted from the total acreage, of the property, if appropriate.
- b. Under the supervision of the Conservation Commission and in accordance with the provisions of the Wetlands Protection Act, M.G.L. Ch. 131, Sec. 40, all wetlands shall be identified, and their area subtracted from the net developable acreage of the total parcel.
- c. Under the supervision of the Board of Health, and in conformance with Title V, percolation tests shall be conducted for all lots in the total acreage of the property which would be developed in a standard subdivision layout. The area of these lots which is determined to be not suitable for on-site sewage disposal shall be subtracted for the net developable acreage of the total parcel.

1.075 The required open land within a cluster shall be determined as follows:

- a. At least fifty (50) percent of the net acreage remaining after the area of all wetlands have been subtracted shall be retained as open agricultural land. Remaining open agricultural land shall have appropriate acreage, configuration and access to enable continued farming operations.

1.076 All buildings, homes, and structures shall be located a minimum of 75 feet from agricultural land and shall be separated from agricultural uses by a 50-foot wide buffer strip of trees and fencing sufficient to minimize conflicts between farming operations and residences.

1.077 The following standards shall apply to developments requiring on-site sewage disposal:

- a. The applicant shall submit a septic system design prepared by a certified engineer and approved by the Board of Health and a plan illustrating the location of water supply wells with the special permit application. No community septic system serving the development shall exceed sewage flow of 2,000 gallons per day. Septic systems shall be placed in the development to maximize the distance between systems and may be placed within common areas or on individual lots. Maintenance of community septic systems shall be the responsibility of the homeowners' association specified in Section 1.09.
- b. No cluster development shall be approved unless the applicant can demonstrate to the satisfaction of the Planning Board that the potential for groundwater pollution is no greater from the proposed cluster development than would be expected from a conventional subdivision with single-family houses on lots meeting the normal lot size requirements located on the same parcel. Where necessary, the Planning Board may hire a Professional Engineer to analyze and certify groundwater quality impacts and may charge the applicant for the cost of such analysis.

1.08 Protection of Open Agricultural Land

The following standards shall apply to open agricultural land to be protected as part of the development of residential cluster developments:

1.081 Farmland owners are not required to sell the part of their property which is to become permanent agricultural open space, provided that they do convey the development rights of that open space in a conservation easement prohibiting future development of this property to any of the official bodies named in Section 1.082 below.

1.082 All remaining open agricultural land shall be permanently protected by either:

- a. A permanent conservation easement or deed restriction conveyed to the Town of (town) with Town approval or to a non-profit farmland trust or conservation organization whose principal purpose is to conserve farmland and open space. At a minimum, such an easement or restriction shall entail the use of management practices that ensure existing fields or pastures will be plowed or mowed at least once every year.
- b. Ownership in fee simple conveyed to the Town of (town) with Town approval or to a non-profit farm trust, open space or conservation organization as a gift or for consideration.

1.09 Community Association

1.091 A non-profit, incorporated community association shall be established, requiring membership of each lot owner in the open space community. The community association shall be responsible for the permanent maintenance of all community water and septic systems, common open space, recreational and thoroughfare facilities. A community association agreement of covenant shall be submitted with the special permit application guaranteeing continuing maintenance of such common utilities, land and facilities, and assessing each lot a share of maintenance expenses. Such agreement shall be subject to the review and approval of Town Counsel and the Planning Board.

1.092 Such agreements or covenants shall provide that in the event that the association fails to maintain the common open land in reasonable order and condition in accordance with the agreement, the Town may, after notice to the association and public hearing, enter upon such land and maintain it in order to preserve the taxable values of the properties within the development and to prevent the common land from becoming a public nuisance. The covenants shall also provide that the cost of such maintenance by the Town shall be assessed ratably against the record owners of the properties within the development, their successors or assigns.

1.10 Relationship to Agricultural Incentive Area

All land which is enrolled in the Agricultural Preservation Zoning district shall become eligible for enrollment in the (town) Agricultural Incentive Area and, once enrolled in the Incentive Area, shall receive any and all benefits and incentives included therein.

Note: The adoption of this bylaw will also require the following addition to the zoning bylaw's Table of Dimensional Regulations.

District	Min. Lot Size	Min. Frontage	Min. Side Yard	Min. Rear Yard	Max. . Height	Max. Lot Coverage
Agricultural Preservation	80,000	200	50	50	50	25%

NOTE: Communities should consider a parallel amendment to the Town's subdivision regulations to ascertain and promote consistency with this zoning bylaw.

PETITION TO FORM AN AGRICULTURAL INCENTIVE AREA

(Based upon a petition developed for the Town of Belchertown,
Massachusetts)

C-2 PETITION TO (TOWN) BOARD OF SELECTMEN

We, the undersigned, hereby petition to the _____ (town) _____ Board of Selectmen to establish an agricultural incentive area committee pursuant to the Massachusetts Right to Farm Law, Chapter 613 of the Acts of 1985.

As provided by state law, the Board of Selectmen may appoint a committee which "shall consist of seven members appointed by the board of selectmen" and "shall include one member of the board of selectmen, one member of the planning board, one member of the conservation commission, three residents of the municipality whose principal occupation is agriculture or horticulture and one person from the public at large.

The responsibilities of this committee should include:

1. To map all land in agricultural or horticultural use within the town, indicating soils, property boundaries, ownership, and present zoning.
2. To inform the public and all affected landowners of the purposes and requirements of agricultural incentive areas, using printed information and public meetings.
3. To make recommendations regarding the formation of an agricultural incentive area, provided that no land may be included in the incentive area unless the owner of the land has given prior written approval..
4. To hold a public hearing on the agricultural incentive area plan, and following the hearing, vote to accept or reject the plan.
5. If the plan is adopted, to submit the plan to the Commissioner of Food and Agriculture for certification.
6. To submit the certified plan to the board of selectmen. Approval of the plan requires a two-thirds majority vote of town meeting.

As provided by state law, participation in the agricultural incentive area is voluntary. Landowners which give written approval to participate in an agricultural incentive area are eligible for incentives including:

1. Priority eligibility for the Agricultural Preservation Restriction Program;
2. Protection from nuisance actions related to odor from normal maintenance of livestock or the spreading of manure on farmlands, or noise from livestock or farm equipment used in normal, generally acceptable farming procedures, or from plowing or cultivation operations upon farmlands.
3. Reduced property taxes as provided by Chapter 61A.
4. Protection from special or betterments assessments imposed by the community.

NAME _____ CURRENT ADDRESS _____

MODEL TOWN MEETING WARRANT ARTICLE FOR AGRICULTURAL PRESERVATION FUNDS

(Based upon a warrant article adopted by the Town of Granby,
Massachusetts)

C-3 Proposed Town Meeting Warrant Article: Town Commitment Toward Agriculture Preservation Restriction Program

To see if the Town will raise and appropriate (\$____) to assist the Department of Food and Agriculture of the Commonwealth of Massachusetts for the Town's share in the co-holding and purchasing of Agricultural Preservation Restrictions on a farm or farms in (town) as provided under Chapter 132A, Sections A-D, and Chapter 184, Sections 3-11, of the Massachusetts General Laws.

MODEL FLEXIBLE DEVELOPMENT ZONING BYLAW (Based upon a zoning bylaw adopted by the Town of Sunderland, Massachusetts)

C-4 FLEXIBLE DEVELOPMENT

- 4.00 Any parcel may be divided into not more than six lots, whether a subdivision or not, and built upon under the following alternative area and frontage requirements.
- 4.01 Frontage
The average frontage for all building lots created shall be no smaller than the minimum required under Section __*, but individual lots may have frontage of as little as two-thirds that requirement.
- 4.02 Lot Area
Individual lot area may be as little as one-half that required in Section __*.
- 4.03 Number of Lots
The total number of building lots created from any parcel shall be no larger than the number which reasonably could be expected to be built upon in compliance with Section __* and all other applicable subdivision and health requirements.
- 4.04 Endorsement
The plan creating the lots shall be endorsed by the Planning Board as "Approved for Flexible Development."
- 4.05 Limitation
No further increase in the number of lots shall be allowed through subsequent land division.

* NOTE: Insert "Table of Dimensional Regulations" or equivalent from existing zoning bylaw.

MODEL FOR MAJOR RESIDENTIAL DEVELOPMENT ZONING BYLAW

**(Based upon a zoning bylaw adopted by the Town of Sunderland,
Massachusetts)**

C-5 MAJOR RESIDENTIAL DEVELOPMENT

5.00 Amend Definitions Section by inserting the following at its appropriate alphabetic location: Major Residential Development: the creation of more than six lots (unless restricted from residential use), whether a subdivision or not, or construction of more than six dwelling units within a two-year period from or on a property or set of contiguous properties in common ownership as of _____ (date) _____.

5.01 Applicability

Major Residential Development, that is, the creation of six lots (unless restricted from residential use), whether a subdivision or not, or construction of more than six dwelling units within a two-year period from or on a property or set of contiguous properties in common ownership as of _____ (date) _____ is allowed only on Special Permit, as indicated in Section _____ Regulations Schedule. Such special permits shall be acted upon in accordance with the following. In addition, smaller developments may, at the owner's option, be considered as if a Major Residential Development, and employ the following provisions.

5.02 Procedures

Applicants for Major Residential Development shall file with the Planning Board four copies of the following:

5.021 A development plan conforming to the requirements for a preliminary subdivision plan under the Subdivision Regulations of the Planning Board. Such plan shall also indicate proposed topography and unless the development is to be sewerred, the results of deep soil test pits and percolation tests at the rate of at least one per every five acres, but in no case fewer than five per Major Residential Development.

5.022 An Environmental Analysis, if required by the _____ (town) _____ Subdivision Regulations.

5.023 Any additional information necessary to make the determinations and assessments cited in Sections 5.04 and 5.05.

5.03 Flexible Development

The Planning Board may authorize Flexible Development within a Major Residential Development, subject to the following in lieu of the requirements of Section (Table of Dimensional Regulations) Flexible Development.

5.031 Lots having reduced area or frontage are not limited in number to six, but may not have frontage on a street other than one created by the subdivision involved.

5.032 Each lot shall contain not less than one-half that required at Section _____ and have frontage of not less than 50 feet.

5.033 Any proposed open land, unless conveyed to the Town or its Conservation Commission, shall be covered by a recorded restriction enforceable by the Town providing that such land shall be kept in an open state.

5.04 Number of Dwelling Units

5.041 The Basic Maximum number of dwelling units allowed shall equal the number of lots which could reasonably be expected to be developed upon that parcel under a conventional plan in full conformance with zoning, subdivision regulations, health codes, and other applicable requirements.

5.042 The Planning Board may approve a Major Residential Development containing more than the Basic Maximum number of dwelling units, upon the Board's determination that the proposed Development, through the quality of its site selection, programming, and design, displays

exceptional sensitivity to the objectives of this Bylaw. The increase over the basic maximum number of dwelling units allowed shall normally be equal to:

- a. the number of units (up to 25% of the Basic Maximum) for which the _____ (town) Housing Authority certifies that there is assurance that for at least 20 years through covenant, repurchase agreement, or other means enforceable by the Town, that the unit will be sold or leased at costs meeting the guidelines of State or Federal housing assistance programs, such as the MFHA Home Mortgage Loan Program; plus
- b. the number of units (up to 25% of the Basic Maximum) which could otherwise reasonably have been expected to be developed on land to be restricted under a Conservation Restriction or deeded to the Town, provided that such land is either:
 - land abutting and within 200 feet of a street or other than one created by the subdivision, or
 - land determined by the Planning Board, following consultation with the Conservation Commission, to be of special resource value because of special habitat, fragile terrain, visual importance, or other quality which distinguishes it from land in the district generally.

In no event, however shall the Planning Board allow an increase to the extent that disposal facilities discharging within a Watershed District serve more than one bedroom per 10,000 square feet land area in development in that District.

5.05 Multifamily Development

Multifamily dwellings may be allowed in a Major Residential Development, subject to the following:

- 5.051 On-site sewage disposal systems for multifamily dwellings must meet State or local Board of Health Regulations.
- 5.052 The site plan for multifamily dwellings shall be so designed that access via minor streets servicing single-family homes is avoided.
- 5.053 More than one dwelling may be placed on a lot, but no principal structures shall be closer to each other than the height of the taller structure, each must be provided with access, drainage, and utilities functionally equivalent to that provided under the Planning Board's Subdivision Regulations.
- 5.054 Parking areas shall not be located within a required front yard or within ten feet of a lot line and be screened from public ways by building location, grading, fencing, or plantings.
- 5.055 Departure from the visual scale of single-family development shall be minimized through including not more than eight dwelling units in a single structure, serving not more than two dwelling units from a single entrance, limiting building length to not more than 200 feet, having unbroken roof area of not more than 2,000 square feet and having parking areas individually contain not more than 16 spaces.
- 5.056 No building shall be floodlit. Drives and parking areas shall be illuminated only by shielded lights not higher than 15 feet.

5.06 Decision

The Planning Board shall approve or approve with conditions a Special Permit for Major Residential Development, provided that the Board determines that the plan is on balance beneficial to the Town based upon the considerations established under Zoning Section (Special Permit) Criteria and Section _____ Design Guidelines of the _____ (town) Subdivision Regulations.

5.07 Development Timing

As a condition of its approval, the Planning Board may require a development schedule limiting the rate of development for the premises, taking into consideration the intent of avoiding large year-to-year variations in Town-wide development rate while allowing development consistent with historic average rates, and also taking into consideration the housing cost and feasibility consequences of the limitation, and the ability of the Town to provide needed services to the site in a timely manner. In no event shall a development be limited to fewer than six lots or dwellings units per year, or be obliged to spread development out over more than eight years.

5.08 Agriculture Protection Incentive

In order to benefit the Town through the visual, economic, and ecological benefits or preservation or agricultural use of land, and to benefit owners of land well-suited to agriculture, the following optional procedure may be followed by owners of eligible land if they so choose.

- 5.081 Land located within the Prime Agricultural District may be designated 'Agricultural Protection Land', and included within a Major Residential Development application by reference, whether or not contiguous with or in the same ownership as other land within such applications.
- 5.082 The Basic Maximum number of dwelling units determined under Section 5.04 for land within the Prime Agricultural Protection Land is made subject to a perpetual Conservation Restriction to be granted to the Conservation Commission, prohibiting non-agricultural development.

MODEL PHASED GROWTH ZONING BYLAW

(Based upon a zoning bylaw adopted by the Town of Amherst,
Massachusetts)

C-6 PHASED GROWTH

6.00 Intent and Purpose

The purposes of this bylaw are to: 1) ensure that growth occurs in an orderly and planned manner that allows the Town time for preparation to maintain high quality municipal services for an expanded residential population while allowing a reasonable amount of additional residential growth during those preparations. The citizens of ____ (town) ____ insist on, have pride in, and enjoy a reputation for such high quality and reliable municipal services, and several key municipal services, including water, human services, and schools, are currently or may soon be under considerable strain. This bylaw will relate the timing of residential development to the Town's ability to provide services; and 2) encourage certain types of residential growth which reflect the values of the Town as previously expressed in both policies and appropriations.

6.01 Regulations

Beginning on the effective date of this bylaw, and continuing for ten calendar years, no building permit for a new residential unit or units shall be issued unless in accordance with the regulations of this bylaw.

The regulations of this bylaw shall apply to all definitive subdivision plans, subdivisions not requiring approval, plan approvals and special permits which would result in the creation of a new dwelling unit or units. Dwelling units shall be considered as part of a single development, for purposes of development scheduling, if located either on a single parcel or contiguous parcels of land which have been in the same ownership at any time subsequent to the date of adoption of this bylaw.

For the purposes of this bylaw, any person who owned a parcel of land in ____ (town) ____ prior to ____ (date) ____, shall receive a one-time exemption (one building permit) from the Planned Growth Rate (Section 6.02) and the Development Schedule (Section 6.03) for the purpose of constructing a single-family dwelling unit on the parcel owned, provided that the single-family dwelling unit shall be owned and occupied by the owner of that parcel of land.

The issuance of a building permit for this purpose shall, however, count toward the growth rate of 250 dwelling unit limit.

6.02 Planned Growth Rate

6.021 This bylaw shall take effect beginning on the date of adoption by Town Meeting. Beginning on this date of adoption, the permit granting authority (Planning Board, Zoning Board, or Building Commissioner) shall not approve any development schedule under Section 6.05 which would result in authorizations for more than 250 dwelling units over a 730 consecutive day (two year) period. All authorizations shall count toward this planned growth rate unless otherwise noted.

6.022 Once a development schedule is approved in accordance with Section 6.5, building permits shall be issued in conformity with that schedule, said building permits shall be issued even if the 250 limit has been reached.

6.023 Whenever the rate of growth, as measured by a total of development schedule authorizations plus building permits issued for new dwelling units not part of a development schedule, exceeds a rolling total of 250 additional dwelling units over a 730 consecutive day period, the Building Commissioner shall not issue building permits for any additional dwelling unit or units unless such unit or units are exempt from the 250 limit under either Section 6.01, 6.021, or 6.041(a).

6.03 Development Schedule

Building permits for new dwelling units shall be authorized only in accordance with the following schedule:

Number of New Units in Development	Dwelling Units/Year*
1 - 3	100%
4 - 10	up to 50%
11 - 20	up to 33%
21 - 40	up to 25%
41+	up to 20%

* Percent of units in the development for which building permits may be authorized each year.

6.04 Modifications to Schedule

The following modifications to the development schedule found in Section 6.03 shall be allowed by the Planning Board (for Definitive Subdivisions/Form A Subdivisions) or Zoning Board (for Special Permits) or Building Commissioner (Plan Approvals) as part of the approval of any development. Points assigned in each category are to be cumulatively totaled to determine the modification to the schedule based on the Development Schedule Modification Table found in Section 6.047.

6.041 Affordable Housing

- a. Any development which includes 25% or more of its units for low and/or moderate income people and which is subsidized by federal, state, or local programs, or proposed by the (town) Housing Authority, or by a non-profit or limited dividend partnership, or any development which includes non-subsidized housing units priced to be affordable to people whose income is equal to or less than 120% of the median income for (town) and which provides that the mix of affordable and market rate housing built in any one year is equivalent to the overall mix for the entire development, and which further provides that resale restrictions are established by the developer which ensure that the affordable units remain affordable for a period of forty years, shall be exempt from the Planned Growth Rate in Section 6.02 and shall be allowed in accordance with the following schedule:

Number of New Units	Dwelling Units/Year*
1 - 50 total units	100%
51 - 100 total units	up to 50%
100+ total units	up to 33%

All market rate units within the development shall count toward the 250 units in the 730 consecutive day period.

Points Assigned

- b. Any development that meets the criteria found in Section 14.4(a) but which includes 10% -24% of its units for low and moderate income people. 20 pts.

6.042 Open Space/Farmland

- a. Provisions of open space/parkland, as part of any development, which meets the criteria in Section (cluster zoning section of the bylaw).

Open space consisting of at least 2,000 sq. ft. of usable land per dwelling unit. 5 pts.

Open space consisting of at least 4,000 sq. ft. of usable land per dwelling unit. 10 pts.

Open space consisting of at least 6,000 sq. ft. or more of usable land area per dwelling unit. 15 pts.

- b. Protection and retention of farmland according to the following impacts on working farms:

Development which preserves agricultural land, defined as land classified prime, unique or of state and local importance by the USDA SCS or land characterized by active agricultural use as defined by Chapter 61A of the Mass. General Laws, in accordance with the (farmland preservation section of this bylaw).

30 pts.

Provision of a 100-foot buffer zone, including a fence and screening vegetation, from the property boundary of a working farm.

5 pts.

6.043 Aquifer Protection

Development on the Aquifer Protection Overlay District

Average lot size one-half acre or less, no public sewer

30 pts.

Average lot size more than one-half acre, no public sewer

15 pts.

Average lot size one acre or less, public sewer

5 pts.

Average lot size more than one acre, public sewer

0 pts.

6.044 Cluster

Any development which is constructed under the cluster provisions of the Zoning Bylaw.

20 pts.

6.045 PURD

Any development which is constructed under the PURD provisions of the Zoning Bylaw.

12 pts.

6.046 Other

The Planning Board (Definitive Subdivisions and Form A Subdivision) and Zoning Board of Appeals (Special Permits) or Building Commissioner (Plan Approvals) may grant up to a total maximum of 15 additional points or may deduct up to a total maximum of 15 points based on, and giving due consideration to, the following:

- a. Ability of the Town to adequately serve the proposed development with streets, utilities, drainage, education, and protective services.
- b. The amelioration of development impacts, such as lower densities, preservation of natural or agricultural resources, and scenic views.
- c. Other arrangements which will provide for or reduce the cost of, public services and facilities, such as childcare, health care, elder services, disabled services, recreation, transportation, or water conservations.
- d. Provisions of housing needs for diverse population groups. Special consideration may be given to the scheduling of developments that include attached units or apartments.
- e. Commitments already made in the development schedules for approved developments.
- f. Site design which responds to, incorporates and protects natural features, such as vegetation, topography, water courses and views, or which is designed to respond to the character of the neighborhood.

6.047 Development Schedule Modification Table

Points accumulated under Sections 6.041 through 6.046 shall be totaled and the total shall modify the Development Schedule in Section 6.03 according to the following table.

DEVELOPMENT SCHEDULE		POINT TOTAL									
	Dwelling # of Units	units/year			≤ -30		-15 to -29		-1 to -14	0	1 to
5	6 to 12	13 to 20	21 to 28	29 to 36	37 +						
1 - 3	100%	90%	92%	95%	100%	100%	100%	100%	100%	100%	100%
4 - 10	up to 50%	40%	42%	45%	50%	55%	60%	65%	70%	75%	83%
11 - 20	up to 33%	23%	25%	28%	33%	38%	43%	48%	53%	58%	66%
21 - 40	up to 25%	15%	17%	20%	25%	30%	35%	40%	45%	50%	58%
41+	up to 20%	10%	12%	15%	20%	25%	30%	35%	40%	45%	53%
Note: Schedule Modifications		-10%	-8%	-5%	0%	5%	10%	15%	20%	25%	33%

6.05 Requirements

- 6.051 All Definitive Subdivisions, Form A Subdivisions, Special Permits and Plan Approval applications shall include a proposed development schedule by the applicant.
- 6.052 Development schedules as proposed or modified shall be approved by the appropriate body (Planning Board, ZBA, Building Commissioner), shall be recorded at the (County) County Registry of Deeds, and shall have no effect until recorded. The schedule shall specify the earliest date that each unit/lot may become eligible for the issuance of a building permit.
- 6.053 In the case of a cluster subdivision, a development schedule shall be approved by the Planning Board at the time of Definitive Subdivision approval. If the plan requires modifications to the development schedule based on ZBA actions, the applicant shall return to the Planning Board for approval of a revised development schedule.

6.06 Zoning Change Protection

The protection against zoning changes as granted by Section 6 of Chapter 40A G.L., shall, in the case of a development whose completion has been constrained by this bylaw, be extended to the minimum time for completion allowed under this bylaw.

MODEL HISTORIC PRESERVATION BYLAW

(Based upon a bylaw adopted by the Town of Sandwich, Massachusetts)

C-7 HISTORIC PRESERVATION DISTRICT

7.00 Purpose

The purpose of this bylaw is to promote the educational, cultural, economic, and general welfare of the public through the preservation and protection of buildings, sites, and structures of historic interest, through the maintenance of such landmarks in the history and architecture of (town) , and through the development of appropriate settings for such buildings, sites, and structures.

7.01 Establishment of Historic District

There is hereby established an Historic District under the provisions of Chapter 40C of the Massachusetts General Laws, as shown on the "Plan of the Historic District of the Town of " dated ; said plan being on file with the Town Clerk of (town) .

7.02 Establishment of Historic District Commission

There is hereby established an Historic District under the provisions of Chapter 40C of the Massachusetts General Laws, consisting of (three to seven) members to be appointed by the Selectmen. When the Historic District Commission is first established, (#) members shall be appointed for a term of one year, (#) shall be appointed for a term of two years, and (#) shall be appointed for a term of three years, and their successors shall be appointed in a like manner for terms of three years.

The membership of the Historic District Commission shall be made up as follows:

(#) from nominees submitted by the (town) Historical Society or the Society for the Preservation of New England Antiquities.

(#) from nominees submitted by the Massachusetts Chapter of the American Institute of Architects.

(#) from nominees submitted by the Board of Realtors covering the area.

(#) of the foregoing shall be, if possible, residents of the area included in the Historic District.

7.03 Powers and Duties

The Historic District Commission shall have all of the powers and duties of historic district commissions as provided in Chapter 40C of the Massachusetts General Laws and of subsequent amendments thereto.

7.04 Adoption of Rules and Regulations

The Historic District Commission shall adopt rules and regulations for the conduct of its business, not inconsistent with the provisions of Chapter 40C of the Massachusetts General Laws and may, subject to appropriation, employ clerical and technical assistants or consultants, and may accept money gifts and expend same for such purposes.

7.05 Procedures

When taking action under the provisions of Paragraph 2 of Section 7 of Chapter 40C of the M.G.L., the Historic District Commission shall make its determination within thirty days after the public hearing.

7.06 Validity

In case any section, paragraph, or part of this bylaw be for any reason declared invalid or unconstitutional by any court of last resort, every other section, paragraph, or part shall continue in full force and effect.

MODEL TOWN MEETING ARTICLE
TO ESTABLISH A LAND BANK

(Based on a model developed by the Environmental Lobby of
Massachusetts)

C-8 TOWN MEETING WARRANT ARTICLE FOR A LAND BANK

To see if the Town will vote to petition the Massachusetts General Court to enact legislation that would:

- a. authorize the collection by the Town of a land transfer fee not to exceed two percent (2%) of the purchase price upon the transfer of real property interests located in the Town, and the establishment of exemptions from the fee, as may be provided by (a two-thirds) vote at Town Meeting;
- b. establish a Land Bank fund in the Town treasury; and
- c. authorize the Conservation Commission/Land Bank Commission to use said fund for the purchase of rehabilitation of certain categories of land and interests therein to be permanently held in a _____(Town)_____ Open Space Land Bank, and of the management and maintenance of such lands, in order to conserve open space, protect the environment and preserve natural beauty in the Town, as may be provided by Town Meeting.

Debt incurred for the purposed of this Act, whether incurred before or after acceptance of the Act, may be retired or refinanced by expenditures from the fund established hereunder.

Provided that the authority granted herein shall not reduce state tax revenues pursuant to M.G.L., Ch.62F, Sec. 4.

MODEL DESIGN REVIEW ZONING BYLAW

(Based upon a zoning bylaw adopted by the Town of Amherst,
Massachusetts)

C-9 DESIGN REVIEW

9.00 Purpose

- 9.001 The purpose of this section is to preserve and enhance the Town's cultural, economic and historical resources by providing for a detailed review of all changes in land use, the appearance of structures and the appearance of sites which may affect these resources. The review procedures are intended to:
- a. Enhance the social and economic viability of the Town by preserving property values and promoting the attractiveness of the Town as a place to live, visit and shop;
 - b. Encourage the conservation of buildings and groups of buildings that have aesthetic or historic significance;
 - c. Prevent alterations that are incompatible with the existing environment or that are of inferior quality or appearance; and
 - d. Encourage flexibility and variety in future development.

9.01 Design Review Board

- 9.011 In accordance with the provisions of Chapter 40A of the Massachusetts General Laws, a Design Review Board is hereby established. The Design Review Board shall review applications for all action that are subject to the provisions of this section and shall make recommendations to the appropriate decision-making body concerning the conformance of the proposed action to the design review standards contained herein.
- 9.002 The Design Review Board shall consist of five members, two of whom are registered architects, landscape architects, or persons with equivalent professional training, and one of whom operates a business or owns commercial property in the affected area. Appointments to the Design Review Board shall be made as follows:
- a. One member shall be appointed by the Chairperson of the Planning Board, with the concurrence of a majority of said Board;
 - b. One member shall be appointed by the Chairperson of the Historical Commission, with the concurrence of a majority of said Commission;
 - c. Three members shall be appointed by the Chairperson of the Board of Selectmen, with the concurrence of a majority of said Board;

The terms of all members of the Design Review Board shall be three years, except that when the Board is originally established, the Board of Selectmen or City Council shall make two of their appointments for a two year term and the remaining appointment shall be for a one year term.

9.02 Reviewable Actions

- 9.021 The following types of actions in the areas specified therein shall be subject to review by the Design Review Board and shall be subject to the design standards contained herein.
- a. Exterior action requiring a Building Permit

All new structures, alterations, or additions to existing structures, changes in outdoor land use of changes in site design which require a building permit and which affect the exterior

architectural appearance of the building shall be subject to review by the Design Review Board, provided that the action occurs on land which is located in the _____ zoning district.

b. Exterior actions not requiring a Building Permit

Any construction, alteration, demolition or removal that affects the exterior architectural appearance of a building or the appearance of the building site shall be subject to review by the Design Review Board provided that the site is within 150 feet of the _____ Town Common. Exterior architectural appearance is defined as the architectural character and general composition of the exterior of a building, including but not limited to, the kind, color, and texture of building materials and the type, design, and character of all windows, doors, light fixtures, signs, and appurtenant elements.

c. Actions by Town Government

Any construction, alteration, demolition or removal of a structure or site by the Town of _____ shall be subject to review by the Design Review Board. This includes all actions throughout the Town of _____, except those that are considered to be routine maintenance.

9.03 Procedures for Review of Actions Subject to Design Review

9.031 Applications for all actions subject to review by the Design Review Board shall be made by completing an application form and submitting it to the Building Commissioner. Application forms are available from the Inspection Services Department.

- a. Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant historical, architectural, or cultural material, and when such design is compatible with the surrounding environment.

9.032 Design Review Standards

The Design Review Board shall consider, at a minimum, the following standards in the course of the design review of a proposed action.

- a. Height -- The height of any proposed alteration should be compatible with the style and character of the surrounding buildings.
- b. Proportions of windows and doors -- The proportions and relationships between doors and windows should be compatible with the architectural style and character of the surrounding area.
- c. Relationships of building masses and spaces -- The relationship of a structure to the open space between it and adjoining structures and should be compatible.
- d. Roof shape -- The design of the roof should be compatible with the architectural style and character of the surrounding buildings.
- e. Landscape -- The landscape should be compatible with the character and appearance of the surrounding area.
- f. Scale -- The scale of the structure should be compatible with its architectural style and the character of the surrounding buildings.
- g. Directional expression -- Facades shall blend with other structures in the surrounding area with regard to the dominant vertical or horizontal expression.
- h. Architectural details -- Architectural details including signs, materials, colors, and textures shall be treated so as to be compatible with its original architectural style and to preserve and enhance the character of the surrounding area.

MODEL SITE PLAN APPROVAL BYLAW

(Based upon a zoning bylaw adopted by the Town of Granby,
Massachusetts)

C-10 SITE PLAN APPROVAL

10.00 Projects Requiring Site Plan Approval

10.001 No special permit or building permit shall be issued for any of the following uses:

- a. the construction or exterior alteration of a commercial structure;
- b. the construction or exterior alteration of an industrial structure;
- c. residential developments requiring approval under the Subdivision Control Law (M.G.L., Ch.41);
- d. any other use specified in the Schedule of Use Regulations, which indicates Site Plan Approval is required.

unless a site plan has been endorsed by the Planning Board, after consultation with other boards, including but not limited to the following: Building Inspector, Board of Health, Board of Selectmen, Conservation Commission, Highway Department, Fire Department, and Police Department. The Planning Board may waive any or all requirements of site plan review for external enlargements of less than 25% of the existing floor area.

10.01 Purpose

The purpose of site plan approval is to further the purposes of this bylaw and to ensure that new development is designed in a manner which reasonably protects visual and environmental qualities and property values of the Town, and to assure adequate drainage of surface water and safe vehicular access.

10.02 Application

10.021 Each application for Site Plan Approval shall be submitted to the Planning Board by the current owner of record, accompanied by eight (8) copies of the site plan. The Planning Board shall, within five (5) days, transmit one copy each to the Building Inspector, Board of Health, Conservation Commission, Board of Selectmen, Highway Department, Fire Department, and Police Department.

10.022 The Planning Board shall obtain with each submission, a deposit sufficient to cover any expenses connected with a public hearing and review of plans, including the costs of any engineering or planning consultant services necessary for review purposes.

10.03 Required Site Plan Contents

10.031 All site plans shall be prepared by a registered architect, landscape architect, or professional engineer unless this requirement is waived by the Planning Board because of unusually simple circumstances. All site plans shall be on standard 24" x 36" sheets and shall be prepared at a sufficient scale to show:

- a. The location and boundaries of the lot, adjacent streets or ways, and the location and owner's names of all adjacent properties.
- b. Existing and proposed topography including contours, the location of wetlands, streams, waterbodies, drainage swales, areas subject to flooding, and unique natural land features.
- c. Existing and proposed structures, including dimensions and elevations.
- d. The location of parking and loading areas, driveways, walkways, access and egress points.
- e. The location and description of all proposed septic systems, water supply, storm drainage systems, utilities, and refuse and other waste disposal methods.
- f. Proposed landscape features including the location and a description of screening, fencing, and plantings.

- g. The location, dimensions, height, and characteristics of proposed signs.
- h. The location and a description of proposed open space or recreation areas.

10.032 The Planning Board may waive any information requirements it judges to be unnecessary to the review of a particular plan.

10.04 Procedures for Site Plan Review

10.041 The Planning Board shall refer copies of the application within 15 days to the Conservation Commission, Board of Health, and Building Inspector, who shall review the application and submit their recommendations and comments to the Planning Board. Failure of Boards to make recommendations within 35 days of the referral of the application shall be deemed to be lack of opposition.

10.042 The Planning Board shall hold a public hearing within sixty-five (65) days of the receipt of an application and after due consideration of the recommendations of the Board shall take final action within 90 days from the time of hearing.

10.043 The period of review for a special permit requiring site plan approval shall be the same as any other special permit and shall conform to the requirements of Chapter 40A, Sec. 9, "Special Permits." Specifically, a joint public hearing to address the Special Permit application and Site Plan Approval application shall be held within sixty-five (65) days of the filing of a special permit application with the Planning Board or Board of Appeals. The Planning Board shall then have 90 days following the public hearing in which to act.

10.05 Site Plan Review Criteria

10.051 The following criteria shall be considered by the aforementioned Boards in the review and evaluation of a site plan, consistent with a reasonable use of the site for the purposes permitted or permissible by the regulations of the district in which it is located:

- a. If the proposal requires a special permit, it must conform to the special permit requirements as listed in Section __ of this bylaw.
- b. The development shall be integrated into the existing terrain and surrounding landscape, and shall be design to protect abutting properties and community amenities. Building sites shall, to the extent feasible: a) minimize use of wetlands, steep slopes, floodplains, hilltops; b) minimize obstruction of scenic views from publicly accessible locations; c) preserve unique natural or historical features; d) minimize tree, vegetation and soil removal and grade changes, e) maximize open space retention; and f) screen objectionable features from neighboring properties and roadways.
- c. Architectural style be in harmony with the prevailing character and scale of buildings in the neighborhood and the Town through the use of appropriate building materials, screening, breaks in roof and wall lines and other architectural techniques. Variation in detail, form and siting shall be used to provide visual interest and avoid monotony. Proposed buildings shall relate harmoniously to each other with adequate light, air, circulation, and separation between buildings.
- d. The development shall be served with adequate water supply and waste disposal systems. For structures to be served by on-site waste disposal systems, the applicant shall submit a septic system design prepared by a Certified Engineer and approved by the Board of Health.
- e. The plan shall maximize the convenience and safety of vehicular and pedestrian movement within the site and in relation to adjacent ways. The plan shall describe estimated average daily and peak hour vehicle trips to be generated by the site and traffic flow patterns for vehicles and pedestrians showing adequate access to and from the site and adequate circulation within the site.
- f. The site plan shall show adequate measures to prevent pollution of surface or groundwater, to minimize erosion and sedimentation, and to prevent changes in groundwater levels, increased run-off and potential for flooding. Drainage shall be designed so that run-off shall not be increased, groundwater recharge is maximized, and neighboring properties will not be adversely affected.
- g. The development will not place excessive demands on Town services and infrastructure.

- h. Electric, telephone, cable TV, and other such utilities shall be underground where physically and environmentally feasible.
 - i. Exposed storage areas, machinery, service areas, truck loading areas, utility buildings and structures and other unsightly uses shall be set back or screened to protect the neighbors from objectionable features.
 - j. The site plan shall comply with all zoning requirements for parking, loading, dimensions, environmental performance standards, and all other provisions of this bylaw.
- 10.052 Before approval of a site plan, the reviewing board may request the applicant to make modifications in the proposed design of the project to ensure that the above criteria are met.

10.06 Final Action

- 10.061 The Planning Board's final action shall consist of either:
- a. A determination that the proposed project will constitute a suitable development and is in compliance with the criteria set forth in this bylaw;
 - b. A written denial of the application stating the reasons for such denial; or
 - c. Approval subject to any conditions, modifications, and restrictions as the Planning Board may deem necessary.

10.07 Enforcement

- 10.071 The Planning Board may require the posting of a bond to assure compliance with the plan and conditions and may suspend any permit or license when work is not performed as required.
- 10.072 Any special permit with site plan approval issued under this section shall lapse within on (1) year if a substantial use thereof has not commenced sooner except for good cause.
- 10.073 The Planning Board may periodically amend or add rules and regulations relating to the procedures and administration of this section.

MODEL TOWN MEETING WARRANT ARTICLE FOR ROAD DISCONTINUANCE

(Method Established Under M.G.L. Ch. 40, Sec. 15 and Ch. 82, Sec. 21)

C-11. Town Meeting Warrant Article

"To see if the Town will vote by two-thirds majority to discontinue the maintenance of and abandon the public's right of access to the town ways enumerated below and depicted in the accompanying map:

_____ Road Name _____, (include descriptions);

_____ Road Name _____, and

_____ Road Name _____.

These roads have fallen into disrepair and no longer serve the public interest. (Since these roads were established as an easement on the land, the land under the ways reverts to the abutting landowners.)"

NOTE: The provision in the parenthesis () applies only if it has been determined that the town road was only an easement. If the Town had acquired all the property rights with the road, a strip of public land would still remain between abutting landowners after the road was discontinued.

2. Public Hearing Notice

_____ Town _____, Board of Selectmen
Notice of Public Hearing;

In accordance with the M.G.L. Ch. 82, Sec. 32A as amended by Ch. 136 of the Acts of 1983, the _____ Town _____, Board of Selectmen/City Council will hold a Public Hearing on DATE at TIME at PLACE to hear testimony to discontinue the maintenance of and abandon the public's right to access to town roads enumerated below and depicted in an accompanying map:

_____ Road Name _____, (include descriptions);

_____ Road Name _____, and

_____ Road Name _____.

These roads have fallen into disrepair and no longer serve the public interest.

D. STRATEGIES FOR NATURAL RESOURCE AND ENVIRONMENTAL QUALITY PROTECTION



MODEL WATER SUPPLY PROTECTION ZONING BYLAW

(Based upon zoning bylaws adopted by fifteen Pioneer Valley communities)

D-1 WATER SUPPLY PROTECTION DISTRICT

1.00 Purpose of District

To promote the health, safety and welfare of the community by protecting and preserving the surface and groundwater resources of the Town from any use of land or buildings which may reduce the quality of its water resources.

1.02 Definitions

- a. Aquifer: Geologic formation composed of rock or sand and gravel that contains significant amounts of potentially recoverable potable water.
- b. Groundwater: All water found beneath the surface of the ground.
- c. Hazardous Waste: A waste which is hazardous to human health or the environment. Hazardous wastes have been designated by the U.S. Environmental Protection Agency under 40 CFR 250 and the Regulations of the Massachusetts Hazardous Waste Management Act, Massachusetts General Laws, Chapter 21C.
- d. Impervious Surfaces: Materials or structures on or above the ground that do not allow precipitation to infiltrate the underlying soil.
- e. Leachable Wastes: Waste materials including solid wastes, sludge and pesticide and fertilizer wastes capable of releasing water-borne contaminants to the environment.
- f. Primary Aquifer Recharge Area: Areas which are underlain by surficial geologic deposits including glacialfluvial or lacustrine stratified drift deposits or alluvium or swamp deposits, and in which the prevailing direction of groundwater flow is toward the area of influence of water supply wells.
- g. Secondary Aquifer Recharge Area: Areas which are underlain by surficial geologic deposits including till or bedrock, and in which the prevailing direction of surface waterflow is toward public water supply wells or potential sites for such wells.
- h. Watershed: Lands lying adjacent to water courses and surface water bodies which create the catchment or drainage areas of such water courses and bodies.

1.02 Scope of Authority

The Water Supply Protection District is an overlay district and shall be superimposed on the other districts established by this bylaw. All regulations of the Town of (town), Zoning Bylaw applicable to such underlying districts shall remain in effect, except that where the Water Supply Protection District imposes additional regulations, such regulations shall prevail.

1.03 District Delineation

- 1.031 The Water Supply Protection District is herein established to include all lands within the Town of _____ (town), lying within the primary and secondary recharge areas of groundwater aquifers and watershed areas of reservoirs which now or may in the future provide public water supply. The map entitled "Water Supply Protection District", Town of _____ (town), on file with the Town Clerk, delineates the boundaries of the district.
- 1.032 Where the bounds delineated are in doubt or in dispute, the burden of proof shall be upon the owner(s) of the land in question to show where they should properly be located. At the request of the owner(s) the Town may engage a professional hydrogeologist to determine more accurately the location and extent of an aquifer or primary recharge area, and may charge the owner(s) for all or part of the cost of the investigation.

1.04 Prohibited Uses

- a. Business and industrial uses, not agricultural, which manufacture, use, process, store, or dispose of hazardous materials or wastes as a principal activity, including but not limited to metal plating, chemical manufacturing, wood preserving, furniture stripping, dry cleaning, and auto body repair.
- b. Trucking or bus terminals, motor vehicle gasoline sales.
- c. Car washes, except when located on public water and sewer.
- d. Solid waste landfills, dumps, junk and salvage yards, with the exception of the disposal of process wastes from operations.
- e. Business and industrial uses, not agricultural, which involve the on-site disposal of process wastes from operations.
- f. Disposal of liquid or leachable wastes, except for residential subsurface waste disposal systems, normal agricultural operations and business or industrial uses which involve the on-site disposal of wastes from personal hygiene and food preparation for patrons and employees.
- g. Underground storage and/or transmission of petroleum products excluding liquified petroleum gas, unless all requirements for secondary containment specified in 310 CMR 30.693 are met.
- h. Outdoor storage of salt, de-icing materials, pesticides or herbicides.
- i. The use of septic system cleaners which contain toxic chemicals, including but not limited to methylene chloride and 1-1-1 trichlorethane.
- j. The rendering impervious of more than 20% of the area of any single lot.

1.05 Restricted Uses

- 1.051 Excavation for removal of earth, sand, gravel and other soils shall not extend closer than five (5) feet above the annual high groundwater table. A monitoring well shall be installed by the property owner to verify groundwater elevations. This section shall not apply to excavations incidental to permitted uses, including but not limited to providing for the installation or maintenance of structural foundations, freshwater ponds, utility conduits or on-site sewage disposal.
- a. Access road(s) to extractive operation sites shall include a gate or other secure mechanism to restrict public access to the site.
- 1.052 The use of sodium chloride for ice control shall be minimized, consistent with the public highway safety requirements.

1.053 Commercial fertilizers, pesticides, herbicides, or other leachable materials shall not be used in amounts which result in groundwater contamination levels exceeding Massachusetts Drinking Water Standards.

1.054 Above-ground storage tanks for oil, gasoline or other petroleum products shall be placed in a building on a diked, impermeable surface to prevent spills or leaks from reaching groundwater. Floor drains shall be plugged to prevent discharges of leaks.

1.06 Area Regulations

1.061 In areas within the district which are not served by municipal sewerage systems, the minimum allowable lot size shall be 40,000 square feet.

1.07 Drainage

1.071 All run-off from impervious surfaces shall be recharged on the site by being diverted toward areas covered with vegetation for surface infiltration to the extent possible. Dry wells shall be used only where other methods are infeasible, and shall be preceded by oil, grease and sediment traps to facilitate removal of contamination. All recharge areas shall be permanently maintained in full working order by owner.

1.08 Uses by Special Permit

1.081 Requirements for Special Permit in the Water Supply Protection District

The applicant shall file six (6) copies of a site plan prepared by a qualified professional with the Board of Appeals. The site plan shall at a minimum include the following information where pertinent.

- a. A complete list of chemicals, pesticides, fuels and other potentially hazardous materials to be used or stored on the premises in quantities greater than those associated with normal household use.
- b. Those businesses using or storing such hazardous materials shall file a hazardous materials management plan with the Board of Appeals and Board of Health which shall include:
 1. Provisions to protect against the discharge of hazardous materials or wastes to the environment due to spillage, accidental damage, corrosion, leakage or vandalism, including spill containment and clean-up procedures.
 2. Provisions for indoor, secured storage of hazardous materials and wastes with impervious floor surfaces.
 3. Evidence of compliance with the Regulations of the Massachusetts Hazardous Waste Management Act 310 CMR 30.
- c. Drainage recharge features and provisions to prevent loss of recharge.

- d. Provisions to control soil erosion and sedimentation, soil compaction, and to prevent seepage from sewer pipes.

1.082 Procedures for Special Permit in the Water Supply Protection District

- a. The Board of Appeals shall distribute copies of all application materials to the Planning Board, the Board of Health, the Conservation Commission, and the Water Commissioners, each of which shall review the application, and following a vote, shall submit recommendations and comments to the Board of Appeals. Failure of boards to make recommendations within 35 days of distribution of the applications shall be deemed to be lack of opposition. One copy of the application materials shall be transmitted to or retained by the Town Clerk for viewing by the public during office hours.
- b. After the 35-day period for comment by other boards and departments, and after due notice, the Board of Appeals shall hold a public hearing on the petition for a special permit. Such notice and hearing shall be in accordance with the requirements of Section __ of this bylaw and of M.G.L., Ch. 40, Sec.11. The Board of Appeals may grant the required special permit only upon finding that the proposed use meets the following standards and those specified in Section __ of this bylaw. The proposed use must:
 - 1. in no way, during construction of thereafter, adversely affect the existing or potential quality or quantity of water that is available in the Water Supply Protection District, and;
 - 2. be designed to avoid substantial disturbance of the soils, topography, drainage, vegetation and other water-related natural characteristics of the site to be developed.
- c. The Board of Appeals shall not grant a special permit under this section unless the petitioner's application materials include, in the board's opinion, sufficiently detailed, definite and credible information to support positive findings in relation to the standards given in Section 1.082 (b).

1.09 Non-conforming Use

Non-conforming uses which were lawfully existing, begun or in receipt of a building or special permit prior to the first publication of notice of public hearing for this bylaw may be continued. Such non-conforming uses may be extended or altered, as specified in M.G.L. Ch. 40a, Sec. 6, provided that there is a finding by the Board of Appeals that such change does not increase the danger of groundwater pollution from such use.

MODEL FLOODPLAIN MANAGEMENT ZONING BYLAW

(Based upon a zoning bylaw adopted by the Town of Granby,
Massachusetts)

D-2 FLOODPLAIN DISTRICT

2.00 Purpose

The purposes of the Floodplain District are:

- a. To provide that lands in the Town of _____ subject to seasonal or periodic flooding as described hereinafter shall not be used for residence or other purposes in such manner as to endanger the health or safety of the occupant thereof.
- b. To protect, preserve, and maintain the water table and water recharge areas within the Town so as to preserve present and potential water supplies for the public health and safety of the Town of _____.
- c. To assure the continuation of the natural flow pattern of the water course(s) within the Town of _____ in order to provide adequate and safe floodwater storage capacity to protect persons and property against the hazards of flood inundation.

2.01 Scope of Authority

The Floodplain District is an overlay district and shall be superimposed on the other districts established by this bylaw. All regulations on the _____ (town) Zoning Bylaw applicable to such underlying districts shall remain in effect, except that where the Floodplain District imposes additional regulations, such regulations shall prevail.

2.02 District Delineation

- a. The Floodplain District is defined as all lands designated as Zone A or Zones A 1-30 on the Town of _____ Flood Insurance Rate Maps (FIRM), panels _____ (panel numbers) , effective date _____ (date) .
- b. The floodway boundaries are delineated on the _____ (town) Flood Boundary and Floodway Map (FBFM) dated _____ (town) .
- c. The FIRM and FBFM maps are incorporated herein by reference and are on file with the Town Clerk.

2.03 Permitted Uses

In the Floodplain District no new building shall be erected or constructed, and no existing structure shall be altered, enlarged or moved; no dumping, filling or earth transfer or relocation shall be permitted; nor shall any land, building or structure be used for any purposes except:

- a. Outdoor recreation, including play areas, nature study, boating, fishing and hunting where otherwise legally permitted, but excluding buildings and structures.
- b. Wildlife management or conservation areas, foot, bicycle, and or/horse paths and bridges, provided such uses do not affect the natural flow pattern on any water course.
- c. Grazing and farming, including truck gardening and harvesting of crops.
- d. Forestry and nurseries.
- e. Dwellings lawfully existing prior to the enactment of this bylaw.

2.04 Uses by Special Permit

- 2.041 No structure or building shall be erected, constructed, substantially improved over 50 percent of assessed market value or otherwise created or moved; no earth or other materials dumped, filled, excavated, or transferred, unless a special permit is granted by the Zoning Board of Appeals.
- 2.042 The following uses may be allowed by Special Permit from the Zoning Board of Appeals in accordance with the Special Permit regulations of this bylaw, and additional restrictions and criteria contained herein:
 - a. Single family detached dwelling
 - b. Commercial golf course, recreation, or camp facility
 - c. Commercial landing strip or heliport
- 2.043 The following additional requirements apply in the Floodplain District:
 - a. Within Zone A or Zones A 30, where base flood elevation is not provided on the FIRM or FBFM, the applicant shall obtain any existing base flood elevation data. These data will be reviewed by the Building Inspector for their reasonable utilization toward meeting the elevation or floodproofing requirements, as appropriate, of the State Building Code.
- 2.044 The following provisions apply in the Floodway designated on the FBFM:
 - a. Within the Floodway designated on the FBFM, no encroachments (including fill, new construction, substantial improvements to existing structures, or other development) shall be allowed unless it is demonstrated by the applicant that the proposed development, as a result of compensating actions, will not result in any increase in flood levels within the Town during the occurrence of a 100-year flood in accordance with the Federal Emergency Management Agency's regulations for the National Flood Insurance Program.
 - b. Any encroachment in the Floodway meeting the above standard must also comply with the floodplain requirements of the State Building Code.

2.05 Additional Special Permit Criteria

In addition to the Special Permit criteria specified in _____ (bylaw section) _____, the Zoning Board of Appeals may grant a Special Permit if it finds:

- a. The proposed use will not create increased flood hazards which shall be detrimental to the public health, safety and welfare.
- b. The proposed use will comply in all respects to the provisions of the underlying District or Districts within which the land is located.
- c. The proposed is in compliance with all applicable state and federal laws, including the Massachusetts Building Code and the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, Sec. 40).

2.06 Prohibited Uses

The following uses are specifically prohibited and may not be allowed by special permit:

- a. Solid waste landfills, junkyards, and dumps.
- b. Business and industrial uses, not agricultural, which manufacture, use process, store, or dispose of hazardous materials or wastes as a principal activity, including but not limited to metal plating, chemical manufacturing, wood preserving, furniture stripping, dry cleaning, and auto body repair.
- c. The outdoor storage of salt, other de-icing chemicals, pesticides, or herbicides shall be prohibited without suitable overhead protection from weather and an impervious containment area to hold the volume of stored chemicals.
- d. Drainage, dredging, excavation, or disposal of soil or mineral substances, except as necessary for permitted uses or uses allowed by special permit, as specified in the Earth Removal Bylaw, _____ (bylaw section) _____.

MODEL RIVER PROTECTION ZONING BYLAW

(Based upon a bylaw developed Connecticut River communities by
Pioneer Valley Planning Commission)

D-3 RIVER PROTECTION DISTRICT

3.00 Purposes

The purposes of the _____ (town) River Protection District are to:

- a. Promote the preservation of the scenic qualities of the natural landscape along the River;
- b. Prevent any disruptions to the natural flow of the river;
- c. Protect fisheries and wildlife habitat within and along the river;
- d. Control erosion and siltation;
- e. Enhance and preserve existing agricultural lands, floodplains, and other environmentally sensitive areas along the shoreline;
- f. Conserve shore cover and encourage well-designed developments.

3.01 Scope of Authority

The _____ River Protection District is an overlay district and shall be superimposed on the other districts established by this bylaw. All regulations of the _____ (town) Zoning Bylaw applicable to such underlying districts shall remain in effect, except that where the River Protection District imposes additional regulations, such regulations shall prevail.

3.02 District Delineation

The area affected by this Bylaw shall be the portion of the _____ River under the jurisdiction of this Town, its shores, and landward up to two hundred (200) feet from each bank (as defined by M.G.L. Ch. 131, Sec. 40). All distances shall be measured in horizontal feet.

3.03 Permitted Uses

The following uses are permitted provided they are in conformance with the River Protection Standards in Section 3.09:

- a. Agricultural production, including raising of crops, livestock, poultry, nurseries, orchards, hay;
- b. Recreational uses, provided there is minimal disruption of wildlife habitat;
- c. Maintenance and repair usual and necessary for continuance of an existing use;
- d. Conservation of water, plants, and wildlife, including the raising and management of wildlife;
- e. Emergency procedures necessary for safety or protection of property;
- f. Single-family residences on frontage lots not requiring approval under the Massachusetts Subdivision Control Law, M.G.L. Chapter 41.

3.04 Prohibited Uses

- 3.041 No altering, dumping, filling, removal of riverine materials or dredging is permitted. Maintenance of the river may be done under requirements of M.G.L. Ch. 131, Sec. 40, and any other applicable laws, bylaws, and regulations.
- 3.042 No clear-cutting of existing vegetation and no more than minimal disruption of wildlife habitat is permitted except in those cases where the purposes of M.G.L. Ch. 131, Sec. 40, would be adversely affected, as determined by the Conservation Commission.
- 3.043 All other uses not specifically permitted or allowed by Special Permit within the overlay zone are prohibited.

3.05 Uses By Special Permit

- 3.051 Construction of one dock providing access to the river per parcel or set of contiguous parcels in common ownership shall be allowed upon issuance of a Special Permit from the Planning Board, as specified in _____ of this bylaw.

3.06 Uses By Site Plan Approval

- 3.061 All residential subdivisions which require approval under M.G.L. Ch. 41 shall be laid out in accordance with the cluster development standards contained in Section 3.10, and shall require site plan approval from the Planning Board, as specified in _____ of this bylaw. Each building lot and residence within a residential subdivision shall comply with Section 3.09 of this bylaw.

3.07 Additional Site Plan Approval Criteria

- 3.071 In addition to the Site Plan Approval Criteria contained in Section _____, the Planning Board shall also consider whether uses proposed for Site Plan Approval in the River Protection District meet the following criteria:
- a. Complies with River Protection Standards in Section 3.09 and Riverbank Cluster Development Standards in Section 3.10;
 - b. Is situated on a portion of the site that will most likely conserve shoreland vegetation and the integrity of the buffer strip;
 - c. Is integrated into the existing landscape through features such as vegetative buffers and through retention of the natural shorelines;
 - d. Will not result in erosion or sedimentation;
 - e. Will not result in water pollution.

3.08 Site Plan Approval Procedures for Cluster Developments

3.081 In addition to the Site Plan Approval procedures contained in Section ____ the following procedures shall be followed in the ____ River Protection District:

- a. To promote better communication and to avoid misunderstanding, applicants are encouraged to submit a Preliminary Plan for review by the Planning Board prior to the application for a special permit. Such Preliminary Plans shall comply with the Town's Subdivision Control Regulations.
- b. The Planning Board granting of site plan approval hereunder shall not substitute for compliance with the Subdivision Control Act nor oblige the Planning Board to approve a related Definitive Plan for subdivision, nor reduce any time periods for Board consideration under that law. However, in order to facilitate processing, the Planning Board shall, insofar as practical under law, adopt regulations establishing procedures for submission of a combined Site Plan Approval Application and Subdivision Review Application which shall satisfy this section and the board's regulations under the Subdivision Control Act.
- c. A Site Plan Approval Application and Subdivision Review Application shall be submitted to the Planning Board. Following granting of Site Plan approval, a Definitive Plan shall be submitted to the Planning Board consistent with their Subdivision Regulations and in substantial conformity with the approved Special Permit Application and Subdivision Review Application, except where the Cluster Development does not constitute a subdivision under the Subdivision Control Law.

3.09 River Protection Standards

3.091 All land uses, including all residences developed either on frontage lots or within a cluster development, shall comply with the following standards:

- a. A buffer strip extending at least one hundred (100) feet in depth, to be measured landward from each bank of the ____ River shall be required for all lots within the River Protection District. If any lot, existing at the time of adoption of this bylaw, does not contain sufficient depth, measured landward from the river bank, to provide a one hundred foot buffer strip, the buffer strip may be reduced to 50% of the available lot depth, measured landward from the river bank.
 1. The buffer strip shall include trees and shall be kept in a natural or scenic condition.
 2. No buildings nor structures shall be erected, enlarged, altered or moved within the buffer strip.
 3. On-site disposal system shall be located as far from the ____ River as is feasible.

- b. All new development shall be integrated into the existing landscape on the property so as to minimize its visual impact and maintain natural beauty and environmentally sensitive shoreline areas through use of vegetative and structural screening, landscaping, grading, and placement on or into the surface of the lot.
- c. Run-off from new development shall be directed towards areas covered with vegetation for surface infiltration catch basins, and piped storm sewers shall be used only where other methods are infeasible.

3.10 Riverbank Cluster Development Standards

3.101 Residential subdivision developments in the _____ River Protection District shall be laid out according to the cluster development standards contained herein. Single-family detached dwellings, or lawful accessory buildings, may be constructed on lots in a cluster development, although such lots have less area on frontage than normally required in the underlying district, as herein specified.

- a. The minimum lot size for any cluster development lot shall be 20,000 square feet. The minimum frontage for such lots shall be 100 feet. All other dimensional requirements shall be the same as in the regulations for the underlying district.
- b. The maximum number of dwelling units permitted in a residential cluster development shall be calculated according to the following procedures:
 - 1. The maximum number of dwelling units permitted on a parcel of land shall be determined based upon one unit per acre for the net developable acreage remaining once the area of all wetlands and all areas unsuitable for on-site sewage disposal have been subtracted from the total acreage of the property, if appropriate.
 - 2. Under the supervision of the Conservation Commission and in accordance with the provisions of the Wetlands Protection Act, M.G.L. Ch. 131, Sec. 40, all wetlands shall be identified, and their area subtracted from the net developable acreage of the total parcel.
 - 3. Under the supervision of the board of Health, and in conformance with Title V, percolation tests shall be conducted for all lots in the total acreage of the property which would be developed in a standard subdivision layout. The area of those lots which is determined to be not suitable for on-site sewage disposal shall be subtracted from net developable acreage of the total parcel.
- c. All buildings, roads, drainage systems and utilities shall be laid out in a manner to have the least possible impact on the scenic qualities of the river, and on important natural resources including prime farmlands, wetlands, and tributary watercourses.
- d. The required open land within a cluster shall be determined as follows:
 - 1. At least fifty (50) percent of the net acreage remaining after the area of all wetlands have been subtracted shall be retained as open land.

2. Open land shall be configured in order to protect river areas, shorelines and other important natural resource areas such as prime farmlands to the extent feasible.
 3. All open land shall be permanently protected as provided for in Section 3.11.
- e. All residential structures and accessory uses within the development shall be set back from the boundaries of the development by a buffer strip of at least fifty (50) feet in width which shall include trees and shall be kept in a natural or landscaped condition.
 - f. The following standards shall apply to developments requiring on-site sewage disposal:
 1. The applicant shall submit a septic system design prepared by a certified engineer and approved by the Board of Health and a plan illustrating the location of water supply wells with the special permit application. No community septic system serving the development shall exceed sewage flow of 2,000 gallons per day. Septic systems shall be placed in the development to maximize the distance between systems and shall be placed within common areas rather than on individual lots. Maintenance of community septic systems shall be the responsibility of the homeowners' association specified in Section 3.12.
 2. No cluster development shall be approved unless the applicant can demonstrate to the satisfaction of the Planning Board that the potential for groundwater pollution is no greater from the proposed cluster development than would be expected from a conventional subdivision with single-family houses on lots meeting the normal lot-size requirements located on the same parcel. Where necessary, the Planning Board may hire a Professional Engineer to analyze and certify groundwater quality impacts, and may charge the applicant for the cost of such analysis.

3.11 Common Space Ownership

3.111 All common open land shall be either:

- a. Conveyed to a community association owned or to be owned by the owners of lots within the development. If such a community association is utilized, ownership thereof shall pass with conveyances of the lots in perpetuity;
- b. Conveyed to a non-profit organization, the principal purpose of which is the conservation or preservation of open space;
- c. Conveyed to the Town, at no cost, and be accepted by it for a park or open space use. Such conveyance shall be at the option of the Town and shall require the approval of the voters at a Town Meeting.

3.112 In cases where such land is not conveyed to the Town, a restriction enforceable by the Town shall be recorded to ensure that such land shall be kept in an open or natural state and not be built for residential use nor developed for accessory uses such as parking or

not be built for residential use nor developed for accessory uses such as parking or roadways. Such restrictions shall further provide for maintenance of the common land in a manner which will ensure its suitability for its function, appearance, cleanliness, and proper maintenance of drainage, utilities and the like.

3.12 Community Association

- 3.121 A non-profit, incorporated community association shall be established, requiring membership of each lot owner in the open space community. The community association shall be responsible for the permanent maintenance of all community water and septic systems, common open space, recreational and thoroughfare facilities. A community association agreement of covenant shall be submitted with the special permit application guaranteeing continuing maintenance of such common maintenance expenses. Such agreement shall be subject to the review and approval of Town Counsel and the Planning Board.
- 3.122 Such agreements or covenants shall provide that in the event that the association fails to maintain the common open land in reasonable order and condition in accordance with the agreement, the Town may, after notice to the association and public hearing, enter upon such land and maintain it in order to preserve the taxable values of the properties within the development and to prevent the common land from becoming a public nuisance. The covenants shall also provide that the cost of such maintenance by the Town shall be assessed ratably against the record owners of the properties within the development, their successors or assigns.

3.13 Non-Conforming Uses

- 3.131 Any lawful use, building, structures, premises, land or parts thereof existing at the effective date of this bylaw or amendments thereof and not in conformance with the provisions of this bylaw shall be considered to be a non-conforming use.
- 3.132 Any existing use or structure may continue and may be maintain, repaired, and improved but in no event made larger.
- 3.133 Any non-conforming structure which is destroyed may be rebuilt on the same location but no larger than its overall original square footage.

3.14 Hardships

- 3.141 To avoid undue hardship, nothing in this bylaw shall be deemed to require a change in design, construction, or intended use of any structure for which a building permit was legally issued prior to the effective date of this bylaw. Such construction may be completed within two years form the effective date fo this bylaw, or such construction shall be required to conform to this bylaw.

MODEL SCENIC UPLAND ZONING BYLAW

(Based upon a zoning bylaw adopted by the Town of Monson,
Massachusetts and on the Berkshire Scenic Mountains Act, M.G.L. Chapter
131, Section 39a)

D-4 SCENIC UPLAND REVIEW

4.00 Purpose

The purposes of the Scenic Upland District are:

- a. To preserve and enhance upland areas in the Town of _____ of natural scenic beauty including mountain, ridges, wooded canyons, exceptional vistas or viewsheds, and related natural resources;
- b. To regulate new construction, vegetation removal, filling, or excavation of land which could adversely affect natural resources or scenic qualities;
- c. To prevent erosion, sedimentation, water pollution, flooding and other adverse impacts of development in sensitive upland areas.

4.01 Scope of Authority

The Scenic Upland District is an overlay district and shall be superimposed on the other districts established by this bylaw. All regulations of the _____ Zoning Bylaw applicable to such underlying districts shall remain in effect, except that where the Scenic Upland District imposes additional regulations, such regulations shall prevail.

4.02 District Delineation

4.021 The Scenic Upland District Bylaw shall be applied to sensitive mountain or steep slope areas of scenic and natural resource value as designated on the overlay map entitled "Scenic Upland District, Town of _____", on file with the Town Clerk.

4.022 The Scenic Upland District is intended to include those mountain or upland areas which have one or more of the following characteristics:

- a. Steep slopes greater than 15%;
- b. Unique landforms, including bedrock outcrops, till-covered hills, geological rarities, cliffs, or other unusual topographic features;
- c. Areas of high visual amenity including areas with scenic views, farmlands, streams, wetlands, waterways, and forested slopes.

4.03 Permitted Uses

- a. Agricultural production, including raising of crops, livestock, poultry, nurseries, orchards, hay;
- b. Recreational uses, provided there is minimal disruption of wildlife habitat;
- c. Maintenance and repair usual and necessary for continuance of an existing use;
- d. Conservation of water, plants, and wildlife, including the raising and management of wildlife.

- e. Uses permitted under M.G.L. Chapter 40a, Section 3 with the limitations imposed therein.

4.04 Prohibited Uses

All uses not permitted in Sections 4.03 or 4.05 shall be deemed prohibited.

4.05 Uses Permitted With Scenic Upland Review

The following uses shall be permitted subject to Scenic Upland Review of project site plans prior to the issuance of a building permit or Special Permit or approval of a definitive plan under the Massachusetts Subdivision Control Law:

- a. Any construction or significant alteration of any dwelling or other structure, if any such action affects the exterior appearance. A significant alteration is defined as any alteration exceeding _____ percent of the existing square footage of the structure, or which adds to the height of a structure, or which substantially alters the visual profile of the property or structures thereon;
- b. Any commercial or industrial use allowed by Special Permit in the underlying district;
- c. Any subdivision which requires approval under the Massachusetts Subdivision Control Law, M.G.L., Ch. 40.

4.06 Scenic Upland Review Board

- 4.061 In accordance with the provisions of Chapter 40A of the Massachusetts General Laws, a Scenic Upland Review Board shall review applications and site plans for all actions that are subject to this bylaw, and shall make recommendations to the Building Inspector, Planning Board or Zoning Board of Appeals as described in Section 4.08 concerning the conformance of the proposed action to the design and development standards contained herein.

- 4.062 The Scenic Upland Review Board shall consist of five members, two of whom are registered architects, landscape architects, or persons with equivalent professional training, and one of whom owns property in the affected area. Appointments to the Scenic Upland Review Board shall be made by the Board of Selectmen.

- 4.063 The terms of all members of the Scenic Upland Review Board shall be three years, except that when the Board is originally established, the Board of Selectmen shall make two of their appointments for a three-year term, two appointments for a two-year term, and the remaining appointment shall be for a one-year term.

4.07 Application Contents and Procedures

- 4.071 Applications for all actions subject to review by the Scenic Upland Review Board shall be made by completing an application form and site plan and submitting it to the Building Inspector. Application forms are available from the Office of the Building Inspector.

- 4.072 All applications to the Scenic Upland Review Board shall include all information required by the rules and regulations of the Scenic Upland Review Board, as applicable, in addition to any other information that is required under this bylaw as part of an application for a special permit variance or building permit.

special permit variance or building permit.

- 4.073 To facilitate siting and design of buildings sensitively related to the natural setting, applications for Scenic District Review of proposed development in the scenic district must be accompanied by a site plan which describes or illustrates:
- a. The location and boundaries of the lot, adjacent streets or ways, and the location and owner's names of all adjacent properties;
 - b. Existing and proposed topography including contours, the location of wetlands, streams, waterbodies, drainage swales, areas subject to flooding, and unique natural land features.
 - c. Placement, height, and physical characteristics of all existing and proposed buildings and structures located on the development site;
 - d. Architectural rendering illustrating design of all proposed structures;
 - e. Proposed landscape features including the location and a description of screening, fencing, and planting;
 - f. View points - Photographs of the development site taken from points along the street, together with a map indicating the distance between these points and the site;
 - g. The location of parking and loading areas, driveways, walkways, access and egress points;
 - h. The location and a description of all proposed septic systems, water supply, storm drainage systems, utilities, and refuse, and other waste disposal methods;
 - i. The location and a description of proposed open space or recreation areas;
 - j. Measures to be undertaken during and after construction to prevent erosion, sedimentation, flooding, or water pollution.

4.08 Review Procedures

- 4.081 Upon receipt of an application for Scenic Upland Review, the Building Inspector shall immediately transmit the application to the Scenic Upland Review Board. The Scenic Upland Review Board shall review the application and return its recommendations in writing to the Building Inspector within thirty-five (35) days of the receipt of the application. If the application for Scenic Upland Review is associated with an application for a variance, special permit, or subdivision review, the Scenic Upland Review Board shall immediately transmit their recommendations to the Planning Board or Zoning Board of Appeals as appropriate.
- 4.082 If the Scenic Upland Review Board does not submit its recommendations to the Building Inspector within thirty-five (35) days, such failure to act shall constitute approval of the application.
- 4.083 The Scenic Upland Review Board's action shall be advisory and shall consist of either:
- a. A determination that the proposed project will constitute a suitable development and is in compliance with the criteria set forth in this bylaw;
 - b. Approval subject to conditions, modifications, and restrictions as the Scenic Upland Review Board may deem necessary.

4.084 The applicant shall be given written notice of the public meeting at which their application will be reviewed, and shall be given an opportunity to be heard on the application.

4.085 The Building Inspector, Planning Board, and Zoning Board of Appeals shall, in making their permit granting decisions, give due consideration to the Scenic Upland Review Board's recommendations, and shall communicate all subsequent decisions to said Board.

4.09 Scenic District Review Criteria

4.091 Scenic District Review should ensure that when man-made structures are built in scenic areas, they are sensitively related to the natural setting and that special consideration has been given to their siting and design.

4.092 A Scenic District application may be approved where consistent with the following criteria:

- a. Buildings, building materials, and landscaping are designed and located on the site to blend with the natural terrain and vegetation and preserve the scenic character of the site;
- b. Where public views will be unavoidably affected by the proposed use, architectural and landscaping measures have been employed so as to minimize significant degradation of the existing scenic or aesthetic qualities of the site;
- c. Safeguards have been employed where needed to mitigate against environmental degradation from erosion, sedimentation, water pollution, or flooding.

4.10 Design and Development Standards

All applicants for Scenic Upland Design Review shall comply with the following design and development standards:

4.101 Siting of Structures

- a. The placement of buildings, structures, or signs shall not detract from the site's scenic qualities or obstruct significant views, and shall blend with the natural landscape.
- b. Building sites shall be directed away from the crest of hills in order to preserve the visual integrity of the district.
- c. Developments for more than one structure shall incorporate variable setback, multiple orientations, and other site-planning techniques to avoid the appearance of a solid line of development.
- d. Foundations should be constructed to reflect the natural slope of the terrain. Excessive support members or mechanical systems should be covered or screened.

4.102 Building Materials, Colors, and Architectural Style

- a. Natural building materials which blend with the natural landscape, such as brick, stone, masonry or wood should be emphasized in the design of the exterior.
- b. Architectural style shall reflect the traditional New England character of community.
- c. In selecting exterior colors for structures, reference shall be given to "earth" colors, such as olive, ochre, sienna, gray, gray green, gray blue, etc. Warm colors may be appropriate for small accessory uses or for design details.
- d. Business or industrial uses other than restaurants, recreational uses or travel-related uses such as gasoline service stations and roadside stands are to be conducted entirely within enclosed buildings.

4.103 Landscaping and Site Preparation

- a. In landscaping, preference shall be given to native trees and plants.
- b. The removal of native vegetation or trees shall be minimized to the extent feasible in clearing sites for new structures or roads. Selective clearing of vegetation may be permitted where views may be presently obscured by such vegetation adjoining or within 200 feet of a public or private way, subject to approval of the Scenic Upland Review Board.
- c. Retaining walls may be used to create usable yard space in the side and rear yard. Retaining walls in the exposed side and downhill portions of a lot shall be screened with appropriate landscaping materials.
- d. Any grading or earth-moving operation in conjunction with a proposed development shall be planned and executed in such manner that final contours are consistent with the existing terrain both on and adjacent to the site.

4.104 Accessory Uses and Utilities

- a. Utilities shall be constructed and routed underground except in those situations where natural features prevent the underground siting or where safety considerations necessitate above-ground construction and routing. Above-ground utilities shall be constructed and routed to minimize detrimental effects on the visual setting.
- b. Potentially unsightly accessory uses such as parking lots, storage areas, equipment sheds, above-ground swimming pool, and communications towers, shall be located in areas not visible from streets, or shall be screened by dense evergreen plantings or landscaped earthen berms.
- c. Antennae shall not be silhouetted against the view, preferably not mounted on roof.

4.105 Signs

- a. Signs shall be constructed and located on the site so as to, as nearly as possible, satisfy the standards in Section 4.101 (a).
- b. Signs shall be of the minimum size and height necessary for identification of the business, and shall be located on the building premises.
- c. Signs shall not be internally illuminated. Signs shall be illuminated only with steady, stationary, shielded light sources directed solely onto the sign without causing glare.

4.106 Prevention of Water Pollution and Flooding

- a. Storage and/or transmission of petroleum or other refined petroleum products is prohibited except within buildings which they will heat. Petroleum products stored within a building shall be placed on a diked, impermeable surface to prevent spills or leaks from reaching groundwater.
- b. The amount of sanitary waste discharged to an on-site sewerage system shall not exceed 330 gallons per day per acre.
- c. All run-off from impervious surfaces shall be recharged on the site by being diverted to stormwater infiltration basins covered with natural vegetation. Stormwater infiltration basins must be designed to handle a 25-year storm. Dry wells shall be used only where other methods are infeasible, and shall be preceded by oil, grease, and sediment traps to facilitate removal of contamination. Any and all recharge areas shall be permanently maintained in full working order by the owner.

4.107 Prevention of Erosion and Sedimentation

- a. No area or areas totalling two (2) acres or more on any parcel or contiguous parcels in the same ownership shall have existing vegetation clear-stripped or be filled six (6) inches or more so as to destroy existing vegetation unless in conjunction with agricultural activity or unless necessarily incidental to construction on the premises under a currently valid building permit or unless within streets which are either public or designated on an approved subdivision plan or unless a special permit is approved by the Planning Board on the condition that run-off will be controlled, erosion avoided and either a constructed surface or cover vegetation will be provided not later than the first full spring season immediately following completion of the stripping operation. No stripped area or areas which are allowed by special permit shall remain through the winter without a temporary cover of winter rye or similar plant materials being provided for soil control, except in the case of agricultural activity where such temporary cover would be infeasible.
- b. Sediment and erosion control measures shall be employed to minimize such impacts during and after construction, in accordance with guidelines established by the U.S. Soil Conservation Service "Guidelines for Soil and Water Conservation in Urbanizing Areas of Massachusetts."

MODEL WETLANDS PROTECTION BYLAW

(Based upon a bylaw adopted by the Town of Amherst, Massachusetts)

D-5 WETLAND PROTECTION BYLAW

5.00 Purpose

The purposes of this bylaw are to protect the wetlands, related water resources, and adjoining land areas in the Town of ____ (town) ____ by prior review and control of activities deemed by the Conservation Commission likely to have a significant or cumulative effect upon wetland values, including but not limited to the following: public water supply, private water supply, groundwater, flood control, erosion and sedimentation control, storm damage prevention, prevention of water pollution, fisheries, wildlife, wildlife habitat, recreation, and aesthetic values; these values area to be known collectively as the "wetland protected by this bylaw."

5.01 Jurisdiction

Except as permitted by the Conservation Commission or as provided in this bylaw, no person shall remove, fill, dredge, build upon, or alter the following resource areas:

- a. Any freshwater wetland, riverine wetland, marsh, wet meadow, bog or swamp, or within one hundred (100) feet of said areas;
- b. Any bank or beach, or within one hundred (100) feet of said areas;
- c. Any lake, river, pond, or stream, whether intermittent or continuous, natural or man-made;
- d. Any land under aforesaid waters;
- e. Any land subject to flooding or inundation by groundwater, surface water, storm flowage, or within one hundred (100) feet of said areas;
- f. Isolated wetlands including kettle holes, or within one hundred (100) feet of said areas;
- g. Seasonal wetlands, or within one hundred (100) feet of said areas.

5.02 Exceptions

The application and permit required by this bylaw shall not be required for maintaining, repairing, or replacing, but not substantially changing or enlarging (more than 50% of structure area), an existing or lawfully located structure or facility used in the service of the public to provide electric, gas, water, telephone, telegraph or other telecommunication services, sanitary sewers and storm sewers, provided that the structure or facility is not substantially changed or enlarged, provided that written notice has been given to the Commission at least forty-eight (48) hours prior to commencement of work, and provided that the work conforms to performance standards in regulations adopted by the Commission.

The application and permit required by this bylaw shall not be required for maintaining, repairing, or replacing, but not substantially changing or enlarging (more than 50% of structure area), an existing or lawfully located structure or facility used in the service of the public to provide electric, gas, water, telephone, telegraph or other telecommunication services, sanitary sewers and storm sewers, provided that the structure or facility is not substantially changed or enlarged, provided that written notice has been given to the Commission at least forty-eight (48) hours prior to commencement of work, and provided that the work conforms to performance standards in regulations adopted by the Commission.

The application and permits required by this bylaw shall not apply to emergency projects necessary for the protection of the health or safety of the public, provided that the work is to be performed by or has been order to be performed by an agency of the Commonwealth or a political subdivision thereof, provided that advance notice, oral or written, has been given to the Commission prior to commencement of work or within twenty-four (24) hours after commencement, provided that the Conservation Commission or its agent certifies the work as an emergency project, provided that the work is performed only for the time and place certified by the Conservation Commission for the limited purposes necessary to abate the emergency, and provided that within twenty-one (21) days of commencement of an emergency project a permit application shall be filed with the Commission for review as provided in this bylaw. Upon failure to meet these and other requirements of the Commission, the Commission may, after notice and public hearing, revoke or modify an emergency project approval and order restoration and mitigation measures.

The application and permit required by this bylaw shall not be required for work performed for the normal maintenance or improvement of lands in agricultural use.

5.03 Requests for Determinations and Applications for Permits

Any person desiring to know whether or not a proposed activity or an area is subject to this bylaw may request in writing a determination from the Commission. Such a request for determination shall contain data and plans specified by the regulations of the Commission.

The Commission in an appropriate case may accept as the request under this bylaw the Request for Determination of Applicability filed under the Wetlands Protection Act, G.L. Ch. 131, Sec. 40.

Written application shall be filed with the Commission to perform activities regulated by this bylaw affecting resource areas protected by this bylaw. The application shall include such information and plans as area deemed necessary by the Commission to describe proposed activities and their effects on the environment. No activities shall commence without receiving and complying with a permit issued pursuant to this bylaw.

The Commission in an appropriate case may accept as the application and plans under this bylaw the Notice of Intent and plans filed under the Wetlands Protection Act, G.L., Ch.131, Sec. 40.

At the time of an application request, the applicant shall pay a filing fee specified in regulations of the Commission. This fee is in addition to that required by the Wetlands Protection Act, G.L., Ch.131, Sec. 40. In addition, the Commission is authorized to require the applicant to pay the costs and expenses of any expert consultant deemed necessary by the Commission to review the

costs and expenses of any expert consultant deemed necessary by the Commission to review the application. The Commission may waive the filing fee and costs and expenses for an application or request filed by a government agency, and may waive the filing fee for a request for determination filed by a person having no financial connection with the property which is the subject of the request.

5.04 Public Notice and Hearings

An application or a request for determination shall be hand delivered or sent by certified mail to the Commission. The Commission shall notify all abutters according to the most recent records of the assessors, including those across a traveled way or body of water. The notice to abutters shall state where the request or application, including any accompanying documents, may be examined or obtained. When a person requesting a determination is other than the owner, the request, the notice of the hearing, and the determination itself shall be sent by the Commission to the owners as well as to the person making the request.

The Commission shall conduct a public hearing on any application or request for determination, with written notice given at the expense of the applicant, five (5) working days prior to the hearing, in a newspaper of general circulation in the Town of (town). The Commission in an appropriate case may combine its hearing under this bylaw with the hearing conducted under the Wetlands Protection Act, G.L., Ch.131, Sec. 40.

The Commission shall commence the public hearing within twenty-one (21) days from receipt of a completed application or request for determination, unless the applicant extends the twenty-one (21) day time period by a signed written waiver.

The Commission shall have authority to continue the hearing to a certain date announced at the hearing or to an unspecified date, for reasons stated at the hearing, which may include the receipt of additional information offered by the applicant or others, information and plans required of the applicant, deemed necessary by the Commission in its discretion, or comments and recommendation of boards and officials listed in Section 6. If a date for continuation is not specified, the hearing shall reconvene within twenty-one (21) days after the submission of a specified piece of information or the occurrence of a specified action. The date, time and place of said continued hearing shall be published in a newspaper of general circulation in the Town of (town), five (5) working days prior to the continuation, at the expense of the applicant, and written notice shall be sent to any person who so requests in writing.

The Commission shall issue its permit or determination in writing within twenty-one (21) days of the close of the public hearing thereon.

5.05 Coordination with Other Boards

Any person filing a permit application or a request for determination with the Commission shall provide written notice thereof at the same time, by certified mail or hand delivery, to the Board of Selectmen, Planning Board, Zoning Board of Appeals, Board of Health, Town Engineer, and Building Commissioner. The Commission shall not take final action until such boards and officials have had fourteen (14) days from receipt of notice to file written comments and recommendations with the Commission, which the Commission shall take into account but which shall not be binding on the Commission. The applicant shall have the right to receive any such comments and recommendations, and to respond to them at a hearing of the Commission, prior to final action.

5.06 Determination, Permits, and Conditions

The Commission shall have the authority, after a public hearing, to determine whether a specific parcel of land contains or does not contain resource areas protected under this bylaw. If the Commission finds that no such resource areas are present, it shall issue a negative determination.

If the Commission, after a public hearing on the permit application, determines that the activities which are the subject of the application are likely to have a significant or cumulative detrimental effect upon the wetland values protected by this bylaw, the Commission within twenty-one (21) days of the close of the hearing, shall issue or deny a permit for the activities requested. If it issues a permit, the Commission shall impose conditions which the Commission deems necessary or desirable to protect those values, and all activities shall be done in accordance with those conditions.

The Commission is empowered to deny a permit for failure to meet the requirements of this bylaw, for failure to submit necessary information and plans requested by the Commission; for failure to meet the design specification, performance standards, and other requirements in regulations of the Commission; for failure to avoid or prevent significant or cumulative detrimental effects upon the wetland values protected by this bylaw; and where no conditions are adequate to protect those values.

A permit shall expire three years from the date of issuance. Notwithstanding the above, the Commission in its discretion may issue a permit expiring five years from the date of issuance for recurring or continuous maintenance work, provided that annual notification of time and location of work is given to the Commission. Any permit may be renewed once for an additional one year period.

For good cause the Commission may revoke or amend a permit issued under this bylaw after public notice and public hearing, and notice to the holder of the permit.

The Commission in an appropriate case may combine the permit or other action on an application issued under this bylaw with the Order of Conditions or other action issued or taken under the Wetlands Protection Act, G.L., Ch.131, Sec. 40.

5.07 Regulations

After public notice and public hearing, the Commission shall promulgate rules and regulations to accomplish the purposes of this bylaw. These regulations shall be consistent with the terms of this bylaw. The Commission may amend the rules and regulations after public notice and public hearing.

Failure by the Commission to promulgate such rules and regulations or a legal declaration of their invalidity by a court of law shall not act to suspend or invalidate the effect of this bylaw.

Unless otherwise stated in this bylaw or in the rules and regulations promulgated under this bylaw, the definitions, procedures, and performance standards of the Wetlands Protection Act, G.L., Ch.131, Sec. 40 and associated Regulations, 310 CMR 10.00 as promulgated April 1983, shall apply.

5.08 Definitions

The following definitions shall apply in the interpretation and implementation of this bylaw:

The term "person" shall include any individual, group of individuals, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or political subdivision thereof to the extent subject to town bylaws, administrative agency, public or quasi-public corporation or body, this municipality, and any other legal entity, its legal representatives, agents, or assigns.

The term "alter" shall include, without limitation, the following activities when undertaken to, upon, within or affecting resource areas protected by this bylaw:

- a. Removal, excavation or dredging of soil, sand, gravel, clay, minerals, or aggregate materials of any kind;
- b. Changing or pre-existing drainage characteristics, flushing characteristics, salinity distribution, sedimentation patterns, flow patterns, or flood retention characteristics;
- c. Drainage, or other disturbance of water level or water table;
- d. Dumping, discharging, or filling with any material which may degrade water quality;
- e. Placing of fill, or removal of material, which would alter elevation;
- f. Driving of piles, erection or repair of buildings, or structures of any kind;
- g. Placing of obstructions or objects in water;
- h. Destruction of plant life including cutting of trees;
- i. Changing water temperature, biochemical oxygen demand, or other physical, chemical, or biological characteristics of surface and groundwater;
- j. Any activities, changes or work which may cause or tend to contribute to pollution of any body of water or groundwater.

5.09 Security

As part of a permit issued under this bylaw, in addition to any security required by any other municipal or state board, agency or official, the Commission may require that the performance and observance of the conditions imposed hereunder be secured wholly or in part by a proper bond or deposit of money or negotiable securities or other undertaking of financial responsibility sufficient in the opinion of the Commission.

In addition or in the alternative, the Commission may accept as security a conservation restriction, easement, or other covenant enforceable in a court of law, executed and duly recorded by the owner of record, running with the land to the benefit of this municipality and observed before any lot may be conveyed other than by mortgage deed.

5.10 Enforcement

The Commission, its agents, officers, and employees shall have the authority to enter upon privately owned land for the purpose of performing their duties under this bylaw and may make or cause to be made such examinations, surveys, or samplings as the Commission deems necessary.

The Commission shall have authority to enforce this bylaw, its regulations, and permits issued thereunder by violation notices, administrative orders, and civil and criminal court actions.

Upon request of the Commission, the Selectboard and the Town Counsel will take legal action for enforcement under civil law. Upon request of the Commission, the Chief of Police shall take legal action for enforcement under criminal law.

Municipal boards and officers, including any police officer or other officer having police powers, shall have authority to assist the Commission in enforcement.

Any person who violates any provision of this bylaw, regulations thereunder, or permits issued thereunder, shall be punished by a fine of not more than three-hundred dollars (\$300). Each day or portion thereof during which a violation continues shall constitute a separate offense, and each provision of the bylaw, regulations, or permit violated shall constitute a separate offense. This fine may be in addition to any levied under the Wetlands Protection Act, G.L., Ch.131, Sec. 40.

In the alternative to criminal prosecution, the Commission may elect to utilize the non-criminal disposition procedure set forth in G.L., Ch.40, Sec. 21D.

5.11 Burden of Proof

The applicant for a permit shall have the burden of proving by a preponderance of credible evidence that the work proposed in the application will not have any significant or cumulative detrimental effect upon the wetland values protected by this bylaw. Failure to provide adequate evidence to the Commission supporting this burden shall be sufficient cause for the Commission to deny a permit or grant a permit with conditions.

5.12 Relation to the Wetlands Protection Act

This bylaw is adopted under the Home Rule Amendment of the Massachusetts Constitution and the Home Rule statutes, independent of the Wetlands Protection Act, M.G.L., Ch.131, Sec. 40, and the regulations thereunder.

5.13 Severability

The invalidity of any section or provision of this bylaw shall not invalidate any other section or provision thereof, nor shall it invalidate any permit or determination which previously has been used.

MODEL HAZARDOUS MATERIAL
AND UNDERGROUND STORAGE TANK BYLAW

(Based upon a bylaw adopted in the City of Westfield, Massachusetts)

D-6 HAZARDOUS MATERIAL AND UNDERGROUND STORAGE TANK BYLAW

6.00 Authority

The Town of _____ adopts the following measures under its home rule powers, its police powers to protect the public health and welfare, and its authority under M.G.L., Ch. 40, Sec. 21.

6.01 Definitions

- a. Discharge: the spilling, leaking, pumping, emitting, or dumping of toxic or hazardous materials upon or into any land or waters of the Town of _____.
- b. Hazardous Material: any substance with such physical, chemical, or infectious characteristics as to pose a potential hazard to existing or potential water supplies or to human health. Hazardous materials include, but are not limited to, toxic chemicals, heavy metals, radioactive or infectious wastes, acids and alkalies, pesticides, petroleum products, herbicides, solvents, and thinners.
- c. Underground Storage: storage below ground level but not including storage in a free-standing container within a building.

6.02 Prohibitions

- 6.021 All new underground storage tanks with volumes less than 1,100 gallons are prohibited from the Water Supply Protection District.
- 6.022 The discharge of hazardous materials within the Town of _____ is prohibited with the following exceptions:
 - a. Disposal of sanitary sewage to subsurface sewage disposal systems approved under Title 5 of the Massachusetts Environmental Code or to a wastewater treatment facility.
 - b. Application of fertilizers and pesticides in accordance with label recommendations and with regulations of the Massachusetts Pesticide Control Board.
 - c. Application of roadsalts or other de-icing chemicals provided that such use is minimized and consistent with public highway safety standards.
 - d. Proper disposal of acceptable materials at a facility or site which has received and maintained all legal approvals as specified in the Massachusetts Hazardous Waste Management Act, M.G.L., Ch. 21C, Sec. 7.
- 6.023 The use of septic system cleaners containing toxic or hazardous materials is prohibited.

6.03 Hazardous Material Registration and Controls

- 6.031 Every owner, or operator of a commercial, industrial, or agricultural operation storing hazardous materials in quantities totaling more than 50 gallons liquid volume or 25 pounds dry weight shall register with the Fire Department a description of the types and quantities of hazardous materials stored, and the location and method of storage. Registration required by this subsection shall be submitted within sixty (60) days of the effective date of this bylaw and annually thereafter.
- 6.032 The Fire Department may require that an inventory of hazardous materials be maintained on the premises and be reconciled with purchase, use, sales, and disposal records on a monthly basis.
- 6.033 Hazardous materials shall be stored in product-tight storage containers and shall be removed and disposed of in accordance with the Massachusetts Hazardous Waste Management Act, M.G.L., Ch. 21C.
- 6.034 The Fire Department shall require that containers of hazardous material be stored on an impervious, chemical-resistant surface, that the storage area be enclosed with an impermeable dike or within an impermeable basement, and that the containers be protected from weather, vandalism, corrosion, and leakage.
- 6.04 Underground Storage Tanks of Volumes Greater Than 1,100 Gallons
Every owner of an underground storage container for hazardous materials including petroleum products of volumes greater than 1,100 gallons shall comply with all applicable state regulations for such storage.
- 6.05 Permits For Existing and New Underground Storage Tanks of Volumes Less Than 1,100 Gallons
- 6.051 Every owner of an underground storage container for hazardous materials including petroleum products affected by this bylaw shall apply to the Fire Department for a permit to maintain a storage facility. Application shall be made within sixty (60) days of the effective date of this _____ and shall contain the following information:
- a. Name, address, and telephone numbers of the owner and operator;
 - b. The type of materials stored;
 - c. Tank size and construction type for tank and piping;
 - d. Evidence of the date of installation warranty;
 - e. Plot plan of the site, including location of the tank, pumping components, and any wells or water bodies.
- 6.052 The head of the _____ (town) Fire Department is required to send to the Board of Health, the Water Department and the Conservation Commission a copy of every permit application for a new storage facility, with a request for a recommendation of approval or disapproval within 30 days.
- 6.053 Subsequent to the effective date of this ordinance, no new underground storage containers shall be installed unless the owner shall have first obtained a permit from the Fire Department. If the Fire Department determines that the proposed storage container constitutes a danger to a water supply, water body, public health or safety, the Fire Department may deny the permit or may grant it subject to conditions which the Department determines are necessary.

Department determines are necessary.

6.054 These permits shall be in addition to any license or permit required by M.G.L., Ch. 148, as amended, or by any regulation issued thereunder. The fee for this permit, payable to the Town of _____ shall be _____ dollars.

6.055 If the ownership of any underground storage tank is transferred, the new owner shall notify the Fire Department within ten (10) working days.

6.06 Underground Storage Tank Installation and Construction Standards For Tanks of Volumes Under 1,100 Gallons

6.061 New underground storage containers shall be installed by a manufacturer's approved installation contractor in the presence of the head of the Fire Department or his agent. Newly installed underground storage containers shall be surrounded by at least twelve (12) inches of clean sand which shall also be placed between the tank and a firm base.

6.062 Every new or replacement tank and its piping shall be tested separately, at the owner's expense, prior to its being buried. The tank shall be tested by air pressure at not less than 3 and not more than 5 lbs. per square inch. The piping shall be tested hydrostatically to 150% of the maximum anticipated pressure of the system, or tested pneumatically, after all joints and connections have been coated with a soap solution, to 100% of the maximum anticipated pressure of the system but not less than 50 lbs. per square inch gauge at the highest point of the system. After the tank and piping have been fully buried, all subsequent testing of underground tanks shall be done by the precision test in accordance with the provisions of Pamphlet No. 329, Chapter 4-3-10, of the National Fire Protection Association, or other test of equivalent or superior accuracy. The owner shall furnish the head of the Fire Department with a certified copy of the results of all testing required by this Section which the head of the Fire Department shall keep with the records of the storage facility.

6.063 Newly installed underground storage containers shall be protected from internal and external corrosion and shall be of a design approved by the Board of Health and the head of the Fire Department. The following container construction systems are considered to provide adequate corrosion protection:

- a. UL-listed fiberglass reinforced plastic (FRP);
- b. UL-listed steel tanks provided with cathodic protection;
- c. UL-listed steel tanks with bonded fiberglass coating;
- d. UL-listed double-walled steel tanks with cathodic protection or bonded fiberglass coating;
- e. Other container construction providing equal or better protection against leakage than the above mentioned containers and approved by the head of the Fire Department.

6.064 All replacements of underground storage tanks must comply with aforementioned standards.

6.07 Testing of Underground Storage Tanks of Volumes Less Than 1,100 Gallons

- 6.071 The owner of every existing storage facility which does not satisfy the design requirements of Section 6.06 shall have each tank and its piping tested, at the owner's expense, during the 10th, 13th, 15th, 17th, and 19th year after installation, and annually thereafter.
- 6.072 The owner of every kind of new or existing tank which satisfies all the design requirements of Section 6.06 shall have the tank and its piping tested, at the owner's expense, during the 15th and 20th years following the date of installation and at 2-year intervals thereafter.
- 6.073 If no satisfactory evidence of the installation date exists, annual testing shall begin upon order of the Fire Department.
- 6.074 It is strongly recommended that underground tanks be removed following expiration of manufacturer's warranty or 20 years after installation.
- 6.075 All testing of underground storage containers shall be administered by qualified persons approved by the Fire Department which shall be notified prior to administering a test. The owner of an underground storage container shall, within one week of their receipt, supply to the head of the Fire Department a certified copy of all test results. The head of the Fire Department shall keep this copy with the records of that storage facility.
- 6.076 Except for testing performed on a tank and its piping prior to their being covered, a tank shall be tested by any final or precision test not involving air pressure which can accurately detect a leak of 0.05 gallon per hour or less after adjustment for relevant variables such as temperature change and tank end deflection, and which has been approved by the Marshall. Piping deflection shall be tested hydrostatically to 150% of the maximum anticipated pressure of the system.
- 6.077 The head of the Fire Department may require the owner of any existing tank to have it and its piping tested, at the owner's expense, in any case in which the owner has failed to make a timely application for a permit as required under Section 6.05.
- 6.078 If any of the testing specified in this subsection discloses a leak, the owner of the storage container shall immediately comply with the requirements of Sections 6.07 and 6.08 of this bylaw. If any owner fails or refuses to complete a required test, the Fire Department may require repair or removal of the container.

6.08 Report of Leaks or Spills

Any person who is aware of any spill or loss of a toxic or hazardous material shall report such spill or loss immediately to the head of the Fire Department.

6.09 Removal or Repair of Underground Storage Tanks of Volumes Less Than 1,100 Gallons

- 6.091 All leaking storage containers affected by this bylaw must be emptied by the owner or operator within 24 hours of leak detection and removed or repaired by the owner or operator as specified by the head of the Fire Department in consultation with the Board of Health.

as specified by the head of the Fire Department in consultation with the Board of Health.

6.092 No underground storage container affected by this bylaw shall be removed, or repaired unless the Fire Department has issued written instruction to protect public health and safety during the removal or repair, or unless the head of the Fire Department or Board of Health determine that an emergency exists.

6.093 All underground storage containers affected by this bylaw which the owner has decided to take out of service for a period of less than six (6) months shall promptly notify the Fire Department of the decision and, subject to their direction, have all the product and vapors removed from the container. Before any such container may be restored to service, the owner shall notify the Fire Department which may require that the owner have the container tested, at the owner's expense. Any owner of a container affected by this bylaw which has been or will be out of service for a period greater than six (6) months shall, subject to the directions of the head of the Fire Department, have the container removed or filled with inert material, and have the fill pipe removed or capped with concrete.

6.010 Enforcement

6.101 The Fire Department and its agents may enter upon privately-owned property for the purpose of performing their duties under this bylaw.

6.102 Any person who violates any provision of this bylaw shall be punished by a fine of not more than \$300. Each day or portion thereof during which a violation continues shall constitute a separate offense. If more than one, each condition violated shall constitute a separate offense. Upon request of the Fire Department and Town Council shall take such legal action as may be necessary to enforce this ordinance.

6.011 Costs

In every case the owner shall assume responsibility for costs incurred necessary to comply with this ordinance. The owner shall be responsible for all costs of recovering and properly disposing of any product that has leaked and for all costs of restoring the environment, including groundwater and surface water to an acceptable condition. The Fire Department may charge the owner for expenses incurred in the enforcement of the bylaw.

6.12 Variances

6.121 The Fire Department may vary the application of an provision of this bylaw, unless otherwise required by law, in any case when, in its opinion, the applicant has demonstrated that an equivalent degree of environmental protection required under this bylaw will still be achieve.

6.122 In granting a variance, the Fire Department will take into consideration the direction of the groundwater flow, soil conditions, depth to groundwater, size, shape, and slope of the lot, and existing and future water supplies.

6.123 Any denial of a variance shall be in writing and shall contain a brief statement of the reasons for the denial.

6.13 Severability

The invalidity of any provisions of this bylaw shall not affect the validity of the remainder.

E. STRATEGIES TO PROMOTE QUALITY COMMERCIAL AND INDUSTRIAL DEVELOPMENT



MODEL COMMERCIAL CORRIDOR SITE PLAN APPROVAL BYLAW

(Based on zoning bylaws developed for the Towns of
Hadley and Granby, Massachusetts)

E-1 COMMERCIAL CORRIDOR SITE PLAN APPROVAL

1.00 Projects Requiring Site Plan Approval

1.001 Within the Business District no special permit or building permit shall be issued for any of the following uses:

- a. the construction or exterior alteration of a commercial structure;
- b. the construction or exterior alteration of an industrial structure;
- c. residential developments requiring approval under the Subdivision Control Law (M.G.L. Chapter 40);
- d. any other use specified in the Schedule of Use Regulations, which indicates Site Plan Approval is required.

unless a site plan has been endorsed by the Planning Board, after consultation with other boards, including but not limited to the following: Building Inspector, Board of Health, board of Selectmen, Conservation Commission, Highway Department, Fire Department and Police Department. The Planning Board may waive any or all requirements of site plan review for external enlargements of less than 10% of the existing floor area.

1.01 Purposes

- a. To promote highway traffic safety and protect the capability of state and local roads to conduct traffic smoothly and efficiently;
- b. To promote an attractive and viable commercial district and expand the commercial tax base of the Town;
- c. To protect the rural character, aesthetic visual qualities and property values of the Town and neighboring properties;
- d. To discourage unlimited commercial "strip development" and curb cuts along highways, and encourage commercial growth in nodes and clusters.

1.02 Applications for Site Plan Approval

1.021 Each application for Site Plan Approval shall be submitted to the Planning Board by the current owner of record, accompanied by eight (8) copies of the site plan.

1.022 The Planning Board shall obtain with each submission, a deposit sufficient to cover any expenses connected with a public hearing and review of plans, including the costs of any engineering or planning consultant services necessary for review purposes.

1.03 Required Site Plan Contents

- 1.031 All site plans shall be prepared by a registered architect, landscape architect, or professional engineer unless this requirement is waived by the Planning Board because of unusually simple circumstances. All site plans shall be on standard 24" x 36" sheets and shall be prepared at a sufficient scale to show:
- a. The location and boundaries of the lot, adjacent streets or ways, and the location and owner's names of all adjacent properties.
 - b. Existing and proposed topography including contours, the location of wetlands, streams, waterbodies, drainage swales, areas subject to flooding, and unique natural land features.
 - c. Existing and proposed structures, including dimensions and elevations.
 - d. The location of parking and loading areas, driveways, walkways, access and egress points.
 - e. The location and description of all proposed septic systems, water supply, storm drainage systems, utilities, and refuse and other waste disposal methods.
 - f. Proposed landscape features including the location and a description of screening, fencing, and plantings.
 - g. The location, dimensions, height, and characteristics of proposed signs.
 - h. The location and a description of proposed open space or recreation areas.
 - i. The plan shall describe estimated daily and peak hour vehicle trips to be generated by the site and traffic flow patterns for vehicles and pedestrians showing adequate access to and from the site and adequate circulation within the site.

The Planning Board may waive any information requirements it judges to be unnecessary to the review of a particular plan.

1.04 Procedures for Site Plan Review

- 1.041 The Planning Board shall, within five days, transmit one copy each to the Building Inspector, Board of Health, Conservation Commission, Highway Department, Fire Department, and Police Department, who shall review the application and submit their recommendations and comments to the Planning Board. Failure of Boards to make recommendations within 35 days of the referral of the application shall be deemed to be lack of opposition.
- 1.042 The Planning Board shall hold a public hearing within sixty-five (65) days of the receipt of an application and after due consideration of the recommendations of the Board shall take final action within 90 days from the time of hearing.
- 1.043 The period of review for a special permit requiring site plan approval shall be the same as any other special permit and shall conform to the requirements of Chapter 40A, Sec. 9, "Special Permits." Specifically, a joint public hearing to address the Special Permit application and Site Plan Approval application shall be held within sixty-five (65) days of the filing of a special permit application with the Planning Board or Board of Appeals. The Planning Board shall then have 90 days following the public hearing in which to act.

1.05 Site Plan Review Criteria

- 1.051 In reviewing and evaluating the site plan, and in making a final determination regarding site plan approval, the Planning Board shall consider the following criteria:
- a. The site plan complies with the Commercial Development and Performance Standards contained in Section 1.06.

- b. The site plan minimizes traffic and safety impacts of the proposed development on adjacent highways or roads, and maximizes the convenience and safety of vehicular and pedestrian movement within the site.
- c. The proposed development, to the extent feasible: a) is integrated into the existing landscape; b) minimizes adverse environmental impacts on such features as wetlands, floodplains, and aquifer recharge areas; c) minimizes obstruction of scenic views from publicly accessible locations; d) preserve unique natural or historical features; e) minimizes tree, vegetation, and soil removal and grade changes, f) maximizes open space retention; and g) screens objectionable features from neighboring properties and roadways.
- d. The architectural design of the proposed development is in harmony with the prevailing character of the neighborhood and the Town of (Town).
- e. The proposed development is served with adequate water supply and waste disposal systems and will not place excessive demands on Town services and infrastructure.
- f. The site plan shall shows adequate measures to prevent pollution of surface or groundwater, to minimize erosion and sedimentation, and to prevent changes in groundwater levels, increased run-off and potential for flooding.

1.06 Commercial Corridor Development and Performance Standards

In order to receive site plan approval, all projects or uses must demonstrate compliance with the commercial development standards herein.

1.061 Access and Traffic Impacts

Applicants must demonstrate that the project will minimize traffic and safety impacts on highways.

- a. The number of curb cuts on state and local roads shall be minimized. To the extent feasible, access to businesses shall be provided via one of the following:
 - a. Access via a common driveway serving adjacent lots or premises.
 - b. Access via an existing side street.
 - c. Access via a cul-de-sac or loop road shared by adjacent lots or premises.
- b. One driveway per business shall be permitted as a matter of right. Where deemed necessary by the Special Permit Granting Authority, two driveways may be permitted as part of the Site Plan Approval process, which shall be clearly marked "entrance" and "exit."
- c. Curb cuts shall be limited to the minimum width for safe entering and exiting, and shall in no case exceed 24 feet in width.
- d. all driveways shall be designed to afford motorists exiting to highways with safe sight distance.
- e. The proposed development shall assure safe interior circulation within its site by separating pedestrian and vehicular traffic.
- f. In each case where a new building(s) or new use of more than 3,000 square feet total floor area is proposed, or where any proposed enlargement of a building would result in a building having more than 3,000 square feet total floor area, a traffic impact statement shall be prepared. The traffic impact statement shall contain:
 - a. A detailed assessment of the traffic safety impacts of the proposed project or use on the carrying capacity of any adjacent highway or road;
 - 2. A plan to minimize traffic and safety impacts through such means as physical design and layout concepts, staggered employee work schedules, promoting use of public transit or carpooling, or other appropriate means;
 - 3. An interior traffic and pedestrian circulation plan designed to minimize conflicts and safety problems.
- g. Adequate pedestrian and bicycle access shall be provided as follows:

1. Sidewalks shall be provided to provide access to adjacent properties and between individual businesses within a development;
2. If the property directly abuts a bikeway right-of-way, a paved access route to the bikeway shall be provided.

1.062 Parking

Proposed projects or uses must comply with Parking and Off-street Loading requirements in Section ____ and the following standards:

1. To the extent feasible, parking areas shall be located to the side or rear of the structure, and be shared with adjacent businesses.
2. Parking areas shall be located to the side or rear of the structure. No parking shall be permitted within the required front yard of a structure.

1.063 Landscaping

- a. A landscaped buffer strip at least fifteen (15) feet wide, continuous except for approved driveways, shall be established adjacent to any public road to visually separate parking and other uses from the road. The buffer strip shall be planted with grass, medium height shrubs, and shade trees (minimum 2 inch caliper, planted at least every 50 feet along the road frontage). At all street or driveway intersections, trees or shrubs shall be set back a sufficient distance from such intersections so that they do not present a traffic visibility hazard.
- b. Large parking areas shall be subdivided with landscaped islands, so that no paved parking surface shall extend more than 80 feet in width. At least one tree (minimum 2" caliper) per 35 parking spaces shall be provided.
- c. Exposed storage areas, machinery, service areas, truck loading areas, utility buildings and structures and other unsightly uses shall be screened from view from neighboring properties and streets using dense, hardy evergreen plantings, or earthen berms, or wall or tight fence complemented by evergreen plantings.
- d. All landscaped areas shall be properly maintained. Shrubs or trees which die shall be replaced within one growing season.

1.064 Appearance/Architectural Design

- a. Architectural design shall be compatible with the rural/historic character and scale of buildings in the neighborhood and the Town through the use of appropriate building materials, screening, breaks in roof and wall lines and other architectural techniques. Variation in detail, form and siting shall be used to provide visual interest and avoid monotony. Proposed buildings shall relate harmoniously to each other with adequate light, air, circulations, and separation between buildings.
- b. All proposed projects or uses located within the Historic district shall require approval of architectural plans from the Design Review Board as described in Section ____.

1.065 Storm Water Runoff

- a. The rate of surface water run-off from a site shall not be increased after construction. If needed to meet this requirement and to maximize groundwater recharge, increased runoff from impervious surfaces shall be recharged on site by being diverted to vegetated surfaces for infiltration or through the use of detention ponds. Dry wells shall be used only where other methods are infeasible and shall be used only where other methods are infeasible and shall require oil, grease, and sediment traps to facilitate removal of contaminants.
- b. Neighboring properties shall not be adversely affected by flooding from excessive run-off.

1.066 Erosion Control

Erosion of soil and sedimentation of streams and waterbodies shall be minimized by using the following erosion control practices:

- a. Exposed or disturbed areas due to stripping of vegetation, soil removal, and regrading shall be permanently stabilized within six months of occupancy of a structure.
- b. During construction, temporary vegetation and/or mulching shall be used to protect exposed areas from erosion. Until a disturbed area is permanently stabilized, sediment in runoff water shall be trapped by using staked haybales or sedimentation traps.
- c. Permanent erosion control and vegetative measures shall be in accordance with the erosion/sedimentation/vegetative practices recommended by the Soil Conservation Service.
- d. All slopes exceeding 15% resulting from site grading shall be either covered with 4 inches of topsoil and planted with a vegetative cover sufficient to prevent erosion or be stabilized by a retaining wall.
- e. Dust control shall be used during grading operations if the grading is to occur within 200 feet of an occupied residence or place of business. Dust control methods may consist of grading fine soils on calm days only or dampening the ground with water.

1.067 Water Quality

All outdoor storage facilities for fuel, hazardous materials or wastes, and potentially harmful raw materials shall be located within an impervious, diked containment area adequate to hold the total volume of liquid kept within the storage area.

1.068 Explosive Materials

- a. No highly flammable or explosive liquids, solids, or gases shall be stored in bulk above ground, unless they are located in anchored tanks at least seventy-five (75) feet from any lot line, town way, or interior roadway or forty (40) feet from lot line for underground tanks; plus all relevant federal and state regulations shall also be met.
- b. Propane gas tanks in 100 lb. cylinders (or smaller) shall be exempt from these safety regulations.

1.069 Lighting

- a. Any outdoor lighting fixture newly installed or replaced shall be shielded so that it does not produce a strong, direct light beyond the property boundaries.
- b. No light shall be taller than twenty-five (25) feet.

1.070 Noise

- a. Excessive noise at unreasonable hours shall be muffled so as not to be objectionable due to volume, frequency, shrillness, or intermittence.
- b. The maximum permissible sound pressure level of any continuous, regular, or frequent source of sound produced by any use or activity shall not exceed the following limits at the property line of the sound source:

Source Pressure Level Limits Measured in dB (A's)

District A.M.	7 A.M. - 10 P.M.	10 P.M. - 7
General Business	65	60
Industrial	70	65
Residential	55	45

Sound pressure level shall be measured at all major lot lines, at a height of at least four (4) feet above the ground surface. Noise shall be measured with a sound level meter meeting the standards of the American Standards Institute, ANSI SI.4-1961 "American Standard Specification for General Purpose Sound Level Meters." The instrument shall be set to the A-weighted response scale. Measurements shall be conducted in accordance with ANSI SI.2-1962 "American Standard Meter for the Physical Measurements of Sound."

- c. Sound levels specified shall not be exceeded for more than 15 minutes in any one day, except for temporary construction or maintenance work, agricultural activity, timber harvesting, traffic, church bells, emergency warning devices, parades, or other similar special circumstances.
- d. No person shall engage in or cause very loud construction activities on a site abutting residential use between the hours of 9 P.M. of one day and 7 A.M. of the following day.

1.071 Utilities

- a. Electric, telephone, cable TV, and other such utilities shall be underground where physically and environmentally feasible.
- b. The applicant must demonstrate that the proposed development will not overburden public sewer, water, or other service systems.

1.08 Modifications to the Site Plan

Before approval of a site plan, the reviewing board may request the applicant to make modifications in the proposed design of the project to ensure that the above criteria are met.

1.09 Final Action on Special Permit

The Planning Board's final action on applications for a Special Permit with Site Plan Approval shall consist of either:

- 1. A determination that the proposed project will constitute a suitable development and is in compliance with the criteria set forth in this bylaw;
- 2. A written denial of the application stating the reasons for such denial, or;
- 3. Approval subject to any conditions, modifications and restriction as the Planning Board may deem necessary.

1.10 Enforcement

- 1. The Planning board may require the posting of a bond to assure compliance with the plan and conditions and may suspend any permit or license when work is not performed as required.
- 2. Any special permit with site plan approval issued under this section shall lapse within one (1) year if a substantial use thereof has not commenced sooner except for good cause.
- 3. The Planning Board may periodically amend or add rules and regulations relating to the procedures and administration of this section.

MODEL SIGN BYLAW

(Based on a zoning bylaw developed for the Town of Hadley, Massachusetts. Includes excerpts from a comprehensive sign bylaw developed by the Center for Rural Massachusetts.)

E-2 SIGN BYLAW

2.00 Purpose

The purpose of the sign regulations set forth in this section shall be the following:

- a. to protect public and private investments in buildings and open spaces;
- b. to encourage signs which, by their location and design, are harmonious to the buildings and sites which they occupy, and which eliminate excessive and confusing sign display;
- c. to eliminate potential hazards to motorists and pedestrians; and
- d. to promote the public health, safety, and general welfare.

2.01 Applicability

The provisions of this section shall apply to the construction, erection, alteration, use, location, and maintenance of all signs located out-of-doors, to those signs affixed on any part of a building for the express purpose of being visible from the exterior of the building.

2.02 Definitions

- a. Sign: Any permanent or temporary structure, devise, letter, word, model, banner, pennant, insignia, trade flag, or representation use as, or which is in the nature of an advertisement, announcement, or direction, or is designed to attract the eye by means including intermittent or repeated motion of illumination.
- b. Sign, Accessory: Any sign that advertises, or indicates the person occupying the premises on which the sign is erected or maintained, or the businesses transacted thereon, or advertises the property itself or any part thereof as for sale or rent, and which contains no other matter.
- c. Sign, Area of:
 1. The area of a sign shall be considered to include all lettering, wording, and accompanying designs and symbols, together with the background on which they are displayed, any frame around the sign and any "cutouts" or extensions, but shall not include any supporting structure or bracing.
 2. The area of a sign consisting of individual letters or symbols attached to or painted on a surface, building, wall or window, shall be considered to be that of the smallest quadrangle or a triangle which encompasses all of the letters and symbols.
 3. The area of a sign consisting of a three-dimensional object shall be considered to be the area of the largest vertical cross-section of that object.
 4. In computing the area of signs one side of back-to-back signs shall be included.
- d. Sign, Awning: A sign painted on or attached to the cover of a movable metallic frame, of the hinged, roll, or folding type of awning.
- e. Sign, Free-Standing: A self-supporting sign not attached to any building, wall, or fence, but in a fixed location. This does not include portable or trailer type signs.

- f. Sign, Movable: A sign capable of being readily moved or relocated, including portable signs mounted on a chassis and wheels, or supported by legs.
- g. Sign, Non-Accessory: Any sign not an accessory sign.
- h. Sign, Projecting: A sign which is affixed to building, tree, or other structure and which extends more than six (6) inches beyond the surface to which it is affixed.
- i. Sign, Roof: A sign which is located above, or projected above, the lowest point of the eaves or the top of the parapet wall of any building, or which is painted on or fastened to a roof.
- j. Sign, Temporary: Any sign, including its support structure, intended to be maintained for a continuous period of not more than thirty (30) days in any calendar year.
- k. Sign, Wall: Any sign which is painted on, incorporated into, or affixed parallel to the wall of a building, and which extends not more than six (6) inches from the surface of that building.

2.03 General Regulations

2.031 Permitted Signs

Only signs which refer to a permitted use or an approved conditional use as set forth in Section (Schedule of Use Regulations) of the (town) bylaw area permitted, provided such signs conform to the provisions of this section.

2.032 Prohibited Signs

- a. Billboards or non-accessory signs are not permitted.
- b. Flashing signs, roof signs, signs containing moving parts, and signs containing reflective elements which sparkle in the sunlight are not permitted. Signs indicating the current time and/or temperature are permitted providing they meet all other provisions of this bylaw.
- c. Any sign advertising or identifying a business or organization which is either defunct or no longer located on the premises is not permitted.
- d. In no case shall any sign exceed sixty-four (64) square feet, and all signs shall conform to size standards in Section 2.08.
- e. No new sign shall be permitted in the Floodplain District.

2.04 General Standards

2.041 Any exterior sign or advertising device hereafter erected or maintained, must, unless expressly provided, conform to the following restrictions in all districts:

- a. Any traffic, informational or directional sign owned and installed by a governmental agency shall be permitted.
- b. No private sign shall be placed on a public property.
- c. Signs necessary to warn of a hazard or to post land shall be permitted as required to accomplish these purposes.
- d. Lettering signs: Letters shall be carefully formed and properly spaced, to be neat and uncluttered. Generally, no more than 60% of the total sign area shall be occupied by lettering.
- e. Sign materials: Sign materials should be durable and easy to maintain. Signs may be constructed of wood, metal, slate, or marble, gold leaf, glass, canvas, stained glass, or encased in a wooden frame.

2.05 Placement Standards/Sign Height

- 2.051 Signs shall not be mounted on roofs or extend above the roof line.
- 2.052 No sign together with any supporting framework shall extend to a height above the maximum building height allowed in the district. Free-standing or movable signs cannot extend more than ten (10) feet above ground level.
- 2.053 If any sign is supported by or suspended from a pedestal, post, or tree, it cannot project more than 24 inches over or into any pedestrian or vehicular way customarily used by the public.
- 2.054 Signs must not dominate building facades or obscure any architectural details, (including but not limited to arches, sills, moldings, and cornices).
- 2.055 No sign may be placed in a side yard or a rear yard as required for the particular district in which it is located.
- 2.056 Signs shall be placed at least ____ feet from any lot line and shall be placed so as not to obstruct the view of traffic.

2.06 Illumination Standards

- 2.061 No sign shall incorporate, or be lighted by, flashing or blinking lights, or be designed to attract attention by a change in intensity or by repeated motion.
- 2.062 Any illumination provided for signs shall be white only.
- 2.063 The light source shall be shaded from view off the premises.
- 2.064 no signs shall be illuminated between the hours of 11 p.m. and 6 a.m. unless the premises on which it is located is open for business.

2.07 Additional Standards for Specific Types of Signs

2.071 Awning Signs

- a. Awning signs must be painted on or attached flat against the surface of the awning, but not extend beyond the valance or be attached to the underside.
- b. A minimum of eight (8) feet above sidewalk level must be allowed for pedestrian clearance.

2.072 Construction Signs

One temporary sign of an architect, engineer, or contractor erected during the period such person is performing work on the premises on which such sign is erected and shall be permitted, provided: it shall not exceed four (4) square feet in surface area; and, it shall be set back at least ten (10) feet from the street lot line.

2.073 For Sale, Rent, or Lease Signs

Any temporary sign advertising property for sale or lease shall be permitted provided:

- a. Only one sign shall be erected and it shall not exceed four (4) square feet.
- b. Such signs shall advertise only the property on which the sign is located.
- c. The sign shall be removed by the owner or agent within thirty (30) days of rent, sale, or lease.

2.074 Moveable Signs

Moveable signs are not permitted in any district, except the Town Center district(s) or Central Business district(s). In these areas, moveable signs made only of wood, and standing on legs not over four (4) feet in total height may be allowed by special permit by the Special Permit Granting Authority.

2.075 Multiple Signs

Multiple signs shall be defined as a group of signs clustered together in a single structure or compositional unit. Multiple signs are used to advertise several occupants of the same building or building complex or development.

- a. The display board shall be of an integrated and uniform design.
- b. The allowable sign area shall be computed at 10% of the building front face square footage (FFSF), as computed by the length of times the width of the building facade, to achieve the base square footage, or sixty-four (64) square feet, whichever is smaller.

2.076 Political Signs

- a. A maximum of two (2) temporary signs per lot are allowed.
- b. Such signs may not exceed four (4) square feet in area.
- c. Such signs shall be displayed no earlier than twenty (20) days prior to a voting day, and shall be removed within ten (10) days after a voting day.

2.077 Special Event Signs

A special event sign is a temporary sign that is used in connection with a circumstance, situation, or event (i.e., church bazaar, grand opening, fair, circus, festival) that is expected to be completed within a reasonably short or definite period.

- a. A maximum on one (1) temporary sign per lot is allowed.
- b. Such signs may not exceed ten (10) square feet in area.
- c. Such signs may be erected no sooner than fourteen (14) days before the event and must be removed not later than seven (7) days after the event.

2.08 Districts and Special Regulations

2.081 Signs in Residence Districts

- a. A maximum of two (2) signs per lot is permitted.
- b. Such signs may not exceed eight (8) square feet in area.
- c. One sign per lot indicating the names of the occupants thereof shall be permitted which sign shall not exceed two (2) square feet in area.
- d. One sign per lot relating to an allowed accessory use shall be permitted provided said sign shall not exceed two (2) square feet in area.
- e. One identification sign for each membership club, funeral establishment, community facility or public facility if permitted provided that the sign shall not exceed eight (8) square feet in surface area.
- f. Signs designated historical places or points of interest, erected by governmental authority or by a duly chartered historical association or the like is permitted, not to exceed four (4) square feet in area.
- g. Signs relating to trespassing and hunting shall not exceed two (2) square feet in area. One sign per 50 feet of frontage is allowed.
- h. Signs in residence districts must be located at least ten (10) feet from the front lot line.

2.082 Signs in Agricultural - Residential Districts

- a. A maximum of three (3) signs per lot is permitted.

- b. Such signs may not exceed ten (10) square feet in area.
- c. Any sign allowed under Section 2081 in an Residence district shall be permitted.
- d. No sign shall be permitted on which the principal product or service advertised is not regularly produced or available on the premises.

2.083 Signs in Town Center or Central Business District(s)

Within these districts the intent of the sign regulation is to ensure visual compatibility with the scale and character of the surrounding architecture. The signage shall be designed to be readable by pedestrians and slow moving cars.

- a. There shall be no more than three (3) types of signs (i.e., free-standing, window, wall; or awning, free-standing, and window) employed per building, regardless of the number of occupancies.
 - 1. Each ground floor occupant of a building may display two (2) signs.
 - 2. Each occupant in an upper level of a building may display one sign.
- b. Such signs may not exceed sixteen (16) square feet in area.
- c. Any signs allowed under Section 2.081 in a Residence District, Section 2.082 in an Agricultural district shall be permitted.
- d. Free-standing pole signs shall have a maximum height of 10 feet, a maximum area of 10 square feet and a minimum ground clearance of 7 feet.
- e. Other free-standing signs shall have a maximum height of 4 feet and shall have a maximum area of 16 square feet.
- f. Window signs shall not exceed more than thirty percent (30%) of the window area in which they are displayed.

2.084 Signs in the General Business Districts and Industrial Districts

- a. Each business may not display more than two (2) signs.
- b. Each development may not display more than two (2) signs, one of which may be free-standing. For the purposes of this Section, development shall refer to a site which includes a lot or lots considered as a unit for the development purposes where the lot or lots is occupied by more than one business whether in the same structure or not.
- c. Such signs shall not exceed sixty-four (64) square feet in area.
- d. Any signs allowed under Section 2.08 in a Residence District, Section 2.082 in an Agricultural District, and Section 2.083 in a Town Center or Central Business District shall be permitted.
- e. The allowable sign area for a free-standing sign or wall sign shall be computed at 10% of the building front face square footage (FFSF), as computed by the length times the width of the building facade, to achieve the base square footage of width along the wall on which the business has its main entrance. In no case shall the area for any sign be greater than 64 square feet.
- f. Any detached sign shall be set back from all adjacent public rights-of-way a distance of at least two (2) feet. Signs, in all cases, shall avoid conflicts with public utilities and services.
- g. Signs on adjacent storefronts should be coordinated in height and proportion. The use of a continuous sign-bank extending over adjacent shops within the same building is encouraged, as a unifying element.

2.09 Administration and Enforcement

2.091 Permits

- a. No sign larger than two square feet shall be erected, altered, displayed, relocated, enlarged or created without first obtaining a permit from the Building Inspector or Sign Officer. At minimum, all applications shall include a scale drawing specifying dimensions, illumination, materials, and location on land or buildings.
- b. The Building Inspector or Sign Officer shall issue a permit for a sign when an application therefor has been made and the sign complies with all applicable regulations of the Town and the State Building Code, Article 14. Such application may be filed by the owner of the land or building, or any persons who has the authority to erect a sign on the premises.
- c. The Building Inspector or Sign Officer shall act within 30 days of receipt of said application together with the fee. The Building Inspector's or Sign Officer's action or failure to act may be appealed to the board of Selectmen.

2.091 Fees

A schedule of fees for such permits may be established and amended from time to time by the Planning Board.

2.10 Enforcement

2.101 Designation of the Sign Officer

The Building Inspector (or any other qualified person) shall be appointed by the Selectmen as the Sign Officer. The Sign Officer is authorized to order the repair or removal of any sign and supporting structure which is erected or maintained contrary to this bylaw. Whenever a Sign Officer is designated, the Selectmen should notify the State Outdoor Advertising Board.

2.102 Maintenance and Removal

Every sign shall be maintained in good structural condition at all times. All signs shall be kept neatly painted, including all metal parts and supports thereof that are not galvanized or of rust resistant material. The Building Inspector or the Sign Officer shall inspect and shall have the authority to order the painting, repair, alteration or removal of a sign which shall constitute a hazard to safety, health, or public welfare by reason of inadequate maintenance, dilapidation, or obsolescence.

2.103 Abandoned Signs

Except as otherwise provided in the Section, any sign that is located on property which becomes vacant and is unoccupied for a period of three months or more, or any sign which pertains to a time, event or purpose which no longer applies, shall be deemed to have been abandoned. permanent signs applicable to a business temporarily suspended because of a change of ownership or management of such business shall not be deemed abandoned, unless the property remains vacant for a period of six months or more. An abandoned sign is prohibited and shall be removed by the owner of the sign or owner of the premises.

2.104 Dangerous or Defective Signs

No person shall maintain or permit to be maintained on any premises owned or controlled by him any sign which is in a dangerous or defective condition. Any such sign shall be removed or repaired by the owner of the sign or the owner of the premises.

2.105 Removal of Signs by the Building Inspector or Sign Officer

- a. The Building Inspector or Sign Officer shall cause to be removed any sign that endangers the public safety, such as an abandoned, dangerous, or materially, electrically, or structurally defective sign, or a sign for which no permit has been issued.
- b. The Building Inspector or Sign Officer shall prepare a notice which shall describe the sign and specify the violation involved and which shall state that, if the sign is not removed or the

violation is not corrected within 20 days, the sign shall be removed in accordance with the provisions of this section.

- c. All notices mailed to sign owners or property owners by the Building Inspector or Sign Officer shall be sent by certified mail. Any time periods provided in this section shall be deemed to commence on the date of the receipt of the certified mail.
- d. Any person having an interest in the sign or the property may appeal the determination of the Building Inspector or Sign Officer ordering removal or compliance by filing a written notice of appeal with the town Board of Selectmen within 45 days after the date of mailing the notice, or 45 days after receipt of the notice if the notice was not mailed.

2.11 Penalties

Violation of any provision of this bylaw or any lawful order of the Sign Officer shall be subject to a fine of not more than \$_____ per offense. Each day that such violation continues shall constitute a separate offense.

2.12 Non-Conforming Signs

2.121 Continuance

A non-conforming sign lawfully existing at the time of adoption or subsequent amendment of this bylaw may continue, although such sign does not conform to the provisions of this bylaw.

2.122 Replacement

Any sign replacing a non-conforming sign shall conform with the provisions of this Section, and the non-conforming sign shall no longer be displayed.

2.123 Abandonment

If a non-conforming sign associated with a permitted use or structure has been abandoned for no less than six months (i.e., the structure has not been occupied for six months) then the non-conforming sign shall be removed and its non-conformity shall not continue.

MODEL OFF-STREET PARKING AND LOADING STANDARDS

(Based upon excerpts from Westfield Zoning Ordinance, Northampton Zoning Ordinance, and A Unified Development Ordinance, by Michael B. Brough)

E-3 GENERAL PARKING REGULATIONS

3.00 General Parking Regulations

- 3.001 Off-street parking shall be provided in conjunction with and during the construction, conversion and/or expansion of any structure, as well as upon the expansion of use. In the case of expansion or conversion, these standards shall apply only to the expanded or converted areas.
- 3.002 In granting special permit for any use, the Special Permit Granting Authority may require off-street parking spaces, standards, or conditions in addition to those set forth in this Bylaw, if it deems necessary for the use.
- 3.003 Any specific, more stringent provision in any other section of the Town Bylaw relating to parking shall prevail over provisions in this section.

3.01 Parking Areas Design and Location

All new structures and additions or extensions on existing structures shall be provided with off-street parking spaces in accordance with the following specifications:

3.011 Definitions:

- a. Driveway -- A space, located on a lot, which is not more than fifteen (15) feet in width for residential uses nor more than twenty-four (24) feet in width for commercial or industrial uses at the lot line, built for access to a garage or off-street parking or loading space.
- b. Parking Space -- An off-street space at least nine (9) feet in width and twenty (20) feet in length, excluding the portion of the driveway to such space.

3.012 Location

- a. Required parking shall be provided on the same lot with the main use it is to serve or, in Commercial and Industrial Districts, on a lot that is in the same ownership as, and located within, three-hundred (300) feet of the main use. Parking required for two or more buildings or uses may be provided in combined facilities where it is evident that such facilities will continue to be available for the several buildings or uses.
- b. Parking areas shall be located to the side or rear of the structure. No parking shall be permitted within the required front yard of the structure.

3.013 Drainage

- a. Drainage facilities for each parking area should be designed and constructed to contain stormwater run-off on the premises.

3.014 Screening

- a. For five (5) or more vehicles, parking spaces shall be effectively screened with planting or fencing which adjoins or faces the side or rear lot line of a lot situated in any district.
- b. Screening may consist of decorative elements such as building wall extensions, plantings, berms or other innovative means, must be maintained in good condition, and no advertising shall be placed thereon. The screening shall be designed so that vehicle sight distance shall not be affected at entrances, exits, or at street intersections.

3.015 Lighting

- a. Drives and parking areas shall be illuminated in such a way that there shall be no glare for motorists, pedestrians, or adjoining premises.

3.016 Driveway Access Permits

- a. A driveway access permit must be obtained from the (Building Inspector or Public Works Department) for all new or relocated driveways or parking lots.

3.02 Additional Parking Area Standards for Areas with Ten (10) or More Parking Spaces

3.021 Size

In a parking lot or parking building up to sixty percent (60%) of the parking space must be 9 feet by 20 feet in size. The remaining forty percent (40%) may have a reduced parking space size of 9 feet by 16 feet to accommodate smaller cars. The parking space sizes are exclusive of adequate driveways and aisles.

3.022 Surfacing

The area and access driveways shall be surfaced with bituminous or cement concrete material. The location of spaces shall be suitably marked by painted lines or other appropriate markings.

3.023 To the extent feasible, parking areas shall be shared with adjacent uses. This may be accomplished via one of the following methods:

- a. Access via a common driveway serving adjacent lots or premises.
- b. Access via an existing side street.
- c. Access via a cul-de-sac or loop road shared by adjacent lots or premises.

3.024 Parking areas shall be designed so that vehicles cannot extend beyond the perimeter of such area onto adjacent properties or public rights-of way. Such areas shall also be designed so that vehicles do not extend over sidewalks or tend to bump against or damage any wall, vegetation, or other obstruction.

3.025 Landscaping

All open air surface parking area shall be landscaped in the following manner:

- a. A landscaped buffer strip at least fifteen (15) feet wide, continuous except for approved driveways, shall be established adjacent to any public road to visually separate parking and other uses from the road. The buffer strip shall be planted with grass, medium height shrubs, and shade trees (minimum 2" caliper, planted at least every 50 feet along the road frontage). At all street or driveway intersections, trees or shrubs shall be set back a sufficient distance from such intersections so that they do not present a traffic visibility hazard.
- b. Large parking area, areas providing more than seventy-five (75) parking spaces, shall be subdivided with landscaped islands, so that no paved parking surface shall extend more than 80 feet in width. At least one tree (minimum 2" caliper) per 35 parking spaces shall be provided.
- c. Exposed storage areas, machinery, service areas, truck loading areas, utility buildings and structures and other unsightly uses shall be screened from view from neighboring properties and streets using dense, hardy evergreen plantings, or earthen berms, or wall or tight fence complemented by evergreen plantings.
- d. All landscaped areas shall be properly maintained. Shrubs or trees which die shall be replaced within one growing season.

3.026 Driveway Location

- a. Any portion of any entrance or exit driveway shall not be closer than fifty (50) feet to the curb line of an intersecting street nor shall it be closer than fifty (50) feet to any portion of an existing driveway located in a Business or Industrial District.
- b. Any two driveways leading to or from the same street and from the same lot shall not be within thirty (30) feet of each other at their intersections with the front lot line for an interior lot and forty (40) feet for a corner lot.

3.03 Required Minimum Parking Spaces

- 3.031 For all zoning districts, off-street parking spaces shall be provided for every new structure, the enlargement of an existing structure, or the development of a new land use.
- 3.032 For all zoning districts, except the Central Business District, in cases of a change in use where the existing use (or in cases of vacancy, the next previous use) did not provide for the number of off-street parking spaces required under this Bylaw, then the proposed use does not have to provide for the number of off-street parking spaces, provided said proposed use does not require any more off-street parking spaces under this Bylaw than the existing use (or in cases of vacancy, the next previous use) would. In situations where the proposed use would require a larger number of off-street parking spaces, the proposed use shall only have to provide an additional number of off-street parking spaces equal to the difference between the number required under this Bylaw for the proposed use.
- 3.033 All uses shall provide parking spaces adequate to accommodate under all normal conditions the vehicles of occupants, employees, members, customers, clients, residents, and visitors to the premises, as determined by the Planning Board.

3.04 Mixed Uses

In the case of mixed uses, the parking spaces required shall be the sum of the requirements for the various individual uses computed separately. Parking spaces for one use shall not be considered as providing the required parking for any other use.

3.05 Parking Guidelines

The following guidelines may be used by the Planning Board when determining adequate parking:

USES	REQUIRED MINIMUM SPACES
Residential	
Single-Family Dwelling	2 spaces per dwelling unit
Accessory Apartment	2 spaces per dwelling unit, except the one-bedroom units require only one space
Dwelling Conversion	2 spaces per dwelling unit
Home Occupation	1 additional space
Rooming House, Boarding House	1 space for each room rented in addition to dwelling unit requirements
Tourist Home/Bed & Breakfast	2 spaces, plus 1 additional space for each rooming unit
Two- and Three-Family Dwelling	2 spaces per dwelling unit
Multi-family Dwelling limited to persons of low or moderate income or the elderly	1 space per dwelling unit
Multi-family Dwelling	1 space for each bedroom in each unit plus 1 additional space for every 4 units in the development
Congregate Housing for Elderly and Handicapped	1.5 spaces for each sleeping room

USES	REQUIRED MINIMUM SPACES
Business, Commercial, and Industrial Uses	
Automobile retail and service establishment, and other retail and service establishments involving usually extensive display areas, either indoor or outdoor, in relation to customer traffic.	1 space per 800 square feet of gross floor space. In the case of outdoor display areas one for each 1,000 square feet of lot area in such use.
Commercial, retail, and personal service establishments	1 space per each 300 square feet of gross floor area
Miscellaneous professional and business offices, including banks, insurance, and real estate establishments.	1 space per each 300 square feet of gross floor area
Medical/Dentist Office/Clinics	5 spaces per professional space
Kennels, Veterinary Establishments	Parking spaces adequate to accommodate, under normal conditions, the vehicles of occupants, employees, members, customers, clients, and visitors to the premises shall be provided as determined by the Special Permit Granting Authority
Gas/Service Station	3 spaces/service bay, but not less than 1 space/100 square feet of gross floor area
Hotel or Motor Inn	1 space for each sleeping room, plus 1 space for each 500 square feet of public meeting area or restaurant
Funeral Parlors	10 spaces for each repose room
Drive-in Eating Establishment	1 space per 30 square feet of gross floor area
Restaurants, Taverns	1 space for each 4 seats, 1 space addition for each 2 employees on largest shift
Warehouse or Storage Facility	1 space for 3,000 square feet of gross floor area and/or of lot area in such use
Manufacturing or Industrial Establishment	1 space for each person employed on the largest shift
For all other permitted commercial or industrial uses, including, but not limited to, farm stands, open lot sales, place of the building trades, storage, or distribution plants	Parking spaces adequate to accommodate, under normal conditions, the vehicles of occupants, employees, members, customers, clients, and visitors to the premises shall be provided as determined by the Board of Appeals

USES	REQUIRED MINIMUM SPACES
Government, Institutional, and Public Services Uses	
Indoor place of assembly with fixed seating capacity including theaters, auditoriums, assembly hall, churches, arenas, and convention centers	1 space for every 4 seats
Indoor place of assembly without fixed seats, including libraries, museums, art galleries, government buildings, recreation and community centers membership clubs, skating rinks, or other places of amusement	1 space per each 300 square feet of gross floor area
Bowling Alleys	1 space per 3 lanes
Day Care, Nursery School	1 space per 2 employees
Elementary and Junior High School	1 space for each teacher and employee, including space for the gymnasium or the auditorium, whichever has the larger capacity
High School	1 space for each teacher and employee, plus 1 space per 4 students, including space for the gymnasium or the auditorium, whichever has the larger capacity
Hospital	1.5 spaces per bed at design capacity
Rest, convalescent, and nursing homes and homes for the aged	1 space for each 4 beds
Any use permitted by this Bylaw not interpreted to be covered by this schedule	Closest similar use as shall be determined by the Planning Board

Note 1: Gross floor area shall mean the total area of a building measured by taking the outside dimensions of the building at each floor level intended for occupancy or storage.

Note 2: When the computation of required parking or loading spaces results in the requirement of a fractional space, any fraction of one-half or more shall require one space.

3.06 Off-Street Loading and Unloading Requirements

- 3.061 Adequate off-street loading and unloading space with proper access from a street, highway, common service driveway, or alley shall be provided whenever the normal operation of any development requires that goods, merchandise, or equipment be routinely delivered to or shipped from that development.
- 3.062 The loading and unloading area must be of sufficient size to accommodate the numbers and types of vehicles that are likely to use this area, given the nature of the development proposed. The following table indicates the number and size of spaces that generally satisfy the standard set forth in this subsection. However, the Planning Board may require more or less loading and unloading area if it deems such increases or decreases reasonably necessary to satisfy the foregoing standard.

Gross Leasable Number of Spaces*	Area of Building
1,000 - 19,999	1
20,000 - 79,999	2
80,000 - 127,999	3
128,000 - 191,999	4
192,000 - 255,999	5
256,000 - 319,999	6
320,000 - 391,999	7

Plus one (1) space for each additional 72,000 square feet or fraction thereof.

* Minimum dimensions of 12 x 55 feet and overhead clearance of 14 feet from street grade required.

- 3.063 Loading and unloading areas shall be so located and designed that the vehicles intended to use them can maneuver safely and conveniently to and from a public right-of-way, and complete the loading and unloading operations without obstructing or interfering with any public right-of-way or any parking space or parking lot aisle.
- 3.064 No area allocated to loading and unloading facilities may be used to satisfy the area requirements for off-street parking, nor shall any portion of any off-street parking area be used to satisfy the area requirements for loading and unloading facilities.
- 3.065 Whenever there exists a lot with one or more structures on it constructed before the effective date of this chapter, and a change in use that does not involve any enlargement of a structure is proposed for such lot and, the loading area requirements of this section cannot be satisfied because there is not sufficient area available on the lot that can practically be used for loading and unloading, then the developer need only comply with this section to the extent reasonably possible.

MODEL PLANNED INDUSTRIAL DEVELOPMENT ZONING BYLAW

(Based on excerpts from the Marshfield Zoning Bylaw, Northampton Zoning Ordinance, Ware Zoning Bylaw, and the Granby Zoning Bylaw)

E-4 PLANNED INDUSTRIAL DEVELOPMENT

4.00 Planned Industrial Developments shall be permitted in the _____ Districts only upon issuance of a Special Permit with Site Plan Approval from the (Special Permit Granting Authority).

4.01 General Description

A Planned Industrial Development shall mean a development constructed on a lot or lots under single ownership at the time of application, planned and developed as an integral unit, and consisting primarily of light industrial uses.

4.02 Purposes

The purpose of the Planned Industrial Development regulations in this Section shall include the following:

- a. to attract environmentally acceptable light industries;
- b. to encourage diversity in the community tax base through appropriate industrial development;
- c. to minimize potential adverse environmental conditions, such as pollution and noise, associated with industrial development.

4.03 Uses Permitted By Special Permit With Site Plan Approval

4.031 A Planned Industrial Development shall encourage a wide range of manufacturing, research and other uses which can be built and operated with a minimum of noise, smoke, odor and other nuisances and which do not create adverse impacts upon adjacent uses.

4.032 Uses permitted by Special Permit with Site Plan Approval in a Planned Industrial Development shall be limited only to the following:

a. Industry, Utility, and Communication

1. Telegraph, telephone, and express offices, radio, television, and film broadcasting firms.
2. Warehouse for storage, production, assembly and marketing of wholesale goods.
3. Wholesale trade and distribution.
4. Open storage of raw materials, finished goods or construction equipment and structures for storing such equipment, provided outside storage areas shall be screened from outside view. Not to include junkyards or open storage of abandoned automobiles or other vehicles.
5. Enclosed manufacturing, processing, fabrication, packaging, assembly storage.
6. Construction industry and suppliers.
7. Research offices or establishments for research and development activities.
8. Distributorships dealing with commercial and industrial supplies.
9. The processing of grain, vegetables, or dairy products for human consumption.
10. Repair service establishments
11. Accessory structures and uses customarily incidental to the above permitted uses.

b. Offices and Services to Serve the Convenience Needs of Persons Working in the District.

1. Miscellaneous professional and business offices and services including medical, legal, finance, and other professional services.
2. Restaurants or other places serving food or beverages, except those having the character of a drive-in eating establishment. A drive-in eating establishment is a business establishment where food is usually served to or consumed by patrons while they are seated in parked cars.
3. Automobile service stations.

c. Other Permitted Uses:

1. Agricultural uses including but not limited to nurseries, greenhouses, woodlots, trunk gardens and similar uses.

2. Recreational uses, parks, marinas, picnic areas, and similar uses.
3. Emergency services, including but not limited to, police stations, fire stations, rescue squad, and ambulance service.
4. Public and private non-profit educational institutions.
5. Structures uses for religious purposes.
6. Town equipment garage.
7. Medical center including accessory medical research and associated facilities.
8. Trade or industrial schools.

4.04 Dimensional Regulations

- 4.041 All uses shall be in conformity with the dimensional and density regulations set forth in Table 1, Table of Dimensional Regulations:

Use	Max. Lot Area (sq ft or as noted)	Min. Frontage (feet)	Min. Front Yard (feet)	Min. Side Yard (feet)	Min. Rear Yard (feet)	Max Hieght (feet)	Max. No. of stories	Max Lot Coverage (%)
Planned Industrial Development	10 acres	250	75	50	50	30	2	50
Per Industrial Establishment:								
Without Municipal Water and Sewer	66,000	200	50	25	50	30	2	50
With Municipal Water and Sewer	25,000	100	35	25	35	30	2	50

- 4.042 Other Planned Industrial Development Dimensional Regulations: 75-foot buffer is required along side and rear lots abutting any residential or commercial property.

4.05 General Requirements

- 4.051 The tract in single or consolidated ownership at the time of application shall be at least 10 acres in size.
- 4.052 Business uses may be clustered or grouped together. If this option is selected the following standards are required:
- a. Individual lot sizes shall not be reduced more than ten (10) percent below the largest than normally is required in the district.
 - b. The total number of establishments in the development shall not exceed the number of establishments which could be developed under normal application requirements of the Planned Industrial District.

4.06 Design Standards

4.061 Access

- a. The number of curb cuts on state and local roads shall be minimized. To the extent feasible, access to businesses shall be provided via one of the following:
 1. Access via a common driveway serving adjacent lots or premises.
 2. Access via an existing side street.
 3. Access via a cul-de-sac or loop road shared by adjacent lots or premises.

- b. One driveway per business shall be permitted as a matter of right. Where deemed necessary by the Special Permit Granting Authority, two driveways may be permitted as part of the Site Plan Approval process, which shall be clearly marked "entrance" and "exit."
- c. Curb cuts shall be limited to the minimum width for safe entering and exiting, and shall in no case exceed 24 feet in width.
- d. The proposed development shall assure safe interior circulation within its site by separating pedestrian and vehicular traffic.

4.062 Landscaping

- a. A landscaped buffer strip at least fifteen (15) feet wide, continuous except for approved driveways, shall be established adjacent to any public road to visually separate parking and other uses from the road. The buffer strip shall be planted with grass, medium height shrubs, and shade trees (minimum 2 inch caliper, planted at least every 50 feet along the road frontage). At all street or driveway intersections, trees or shrubs shall be set back a sufficient distance from such intersections so that they do not present a traffic visibility hazard.
- b. Large parking areas shall be subdivided with landscaped islands, so that no paved parking surface shall extend more than 80 feet in width. At least one tree (minimum 2" caliper) per 35 parking spaces shall be provided.
- c. Any use shall be screened from view from any neighboring residence in a residential district by dense, hardy evergreen plantings or by earthen berms, wall or tight fence, complemented by evergreen plantings.
- d. Any outdoor area for storage or utilities shall be screened from view from neighboring properties and streets using materials described in 4.062 (3) above. Where there exists any potential safety hazard to children, physical screening shall prevent children from entering the premises.
- e. All landscaped areas shall be properly maintained. Shrubs or trees which die shall be replaced within one growing season.

4.063 Parking

- a. To the extent feasible, parking areas shall be located to the side or rear of the structure, and be shared with adjacent businesses. See Section ____ for other parking requirements.

4.07 Performance Standards

The purpose of environmental performance standards is to ensure that any use allowed is conducted in a manner which does not adversely affect the surrounding natural or human environment by creating a dangerous, injurious, or objectionable condition. The following environmental controls shall be enforced by the building inspector and shall apply throughout the life of the use or structure.

4.071 Lighting

- a. Exterior lighting, including, but not limited to, lighting of exterior walls of buildings from an external light source, lighting of parking areas, and lighting of walks and drives, shall be done in such a manner as to direct light away from adjacent lots and public ways.
- b. No light shall be taller than twenty-five (25) feet.

4.072 Noise

- a. Excessive noise at unreasonable hours shall be muffled so as not to be objectionable due to volume, frequency, shrillness, or intermittence.
- b. The maximum permissible sound pressure level of any continuous, regular, or frequent source of sound produced by any use or activity shall not exceed the following limits at the property line of the sound source:

Source Pressure Level Limits Measured in dB (A's)

District A.M.	7 A.M. - 10 P.M.	10 P.M. - 7
General Business	65	60
Industrial	70	65
Residential	55	45

Sound pressure level shall be measured at all major lot lines, at a height of at least four (4) feet above the ground surface. Noise shall be measured with a sound level meter meeting the standards of the American Standards Institute, ANSI SI.4-1961 "American Standard Specification for General Purpose Sound Level Meters." The instrument shall be set to the A-weighted response scale and the meter to show response. Measurements shall be conducted in accordance with ANSI SI.2-1962 "American Standard Meter for the Physical Measurements of Sound."

- c. Sound levels specified shall not be exceed for more than 15 minutes in any one day, except for temporary construction or maintenance work, agricultural activity, timber harvesting, traffic, church bells, emergency warning devices, parades, or other similar special circumstances.
- d. No person shall engage in or cause very loud construction activities on a site abutting residential use between the hours of 9 P.M. of one day and 7 A.M. of the following day.

4.073 Vibration

No vibration shall be produced which is transmitted through the ground and is discernable without the aid of instruments at or at any point beyond the lot line.

4.074 Air pollution

Atmospheric emissions of gaseous or particulate matter generated by land use shall conform to the then current regulations of the Massachusetts Division of Environmental Quality Engineering (DEQE). If the proposed land use shall be of a nature to arouse the concern of the Building Inspector and/or Special Permit Granting Authority, the applicant may be required to produce plans and specifications of detail sufficient for review by DEQE. Determination by DEQE that potential exists for emissions in excess of allowable limits shall be grounds for permit refusal.

4.075 Nuisance Odors

- a. There shall be no emissions of toxic or noxious matter or objectionable odors of any kind in such quantity as to be readily detectable at the property line of the lot on which the use emitting the toxic or noxious material or odor is located. For the purposes of this Section, toxic or noxious matter is any solid, liquid, or gaseous matter including, but not limited to, gases, vapors, dusts, fumes, and mists, containing properties which by chemical or other means are:
 - 1. Inherently harmful to destroy life or impair health, or
 - 2. Capable of causing injury to the well-being of persons or damage to property.

4.076 Explosive Materials

- a. All activities and all storage of flammable and explosive materials at any point shall be adequate fire-fighting and fire-suppression devices and equipment.
- b. No highly flammable or explosive liquids, solids, or gases shall be stored in bulk above ground, unless they are located in anchored tanks at least seventy-five (75) feet from any lot line, town way, or interior roadway or forty (40) feet from lot line for underground tanks; plus all relevant federal and state regulations shall also be met.
- c. Propane gas tanks in 100 lb. cylinders (or smaller) shall be exempt from these safety regulations.

4.077 Radioactivity

No activities that emit dangerous radioactivity, at any point; no electrical disturbance adversely affecting the operation at any point, of any equipment, other than that of the creator of such disturbance, shall be permitted.

4.078 Water Pollution

- a. No discharge, at any point, into a private sewer system, stream, or the ground of any material in such a way, or of nature or temperature as can contaminate any running stream, water supply or otherwise cause the emission of dangerous or objectionable elements and accumulation of wastes conducive to the breeding of rodents or insects shall be permitted.
- b. The use and discharge of substances into lakes, streams, or similar waterbodies shall not violate the rules and regulations of the _____ Conservation Commission or the standards of the Massachusetts Division of Quality Engineering.

4.079 Wastes and Refuse

No waste material or refuse shall be dumped upon, or permitted to remain upon, any part of the lot or tract outside of buildings constructed thereon. Waste material or refuse stored outside buildings shall be placed in completely enclosed containers.

4.0710 Storm Water Runoff

The rate of surface water run-off from a site shall not be increased after construction. If needed to meet this requirement and to maximize groundwater recharge, increased runoff from impervious surfaces shall be recharged on site by being diverted to vegetated surfaces for infiltration or through the use of detention ponds. Dry wells shall be used only where other methods are infeasible and shall be used only where other methods are infeasible and shall require oil, grease, and sediment traps to facilitate removal of contaminants.

4.0711 Erosion Control

- a. Erosion of soil and sedimentation of streams and waterbodies shall be minimized by using the following erosion control practices:
 1. Exposed or disturbed areas due to stripping of vegetation, soil removal, and regrading shall be permanently stabilized within six months of occupancy of a structure.
 2. During construction, temporary vegetation and/or mulching shall be used to protect exposed areas from erosion. Until a disturbed area is permanently stabilized, sediment in runoff water shall be trapped by using staked haybales or sedimentation traps.
 3. Permanent erosion control and vegetative measures shall be in accordance with the erosion/sedimentation/vegetative practices recommended by the Soil Conservation Service.
 4. All slopes exceeding 15% resulting from site grading shall be either covered with 4 inches of topsoil and planted with a vegetative cover sufficient to prevent erosion or be stabilized by a retaining wall.
 5. Dust control shall be used during grading operations if the grading is to occur within 200 feet of an occupied residence or place of business. Dust control methods may consist of grading fine soils on calm days only or dampening the ground with water.

4.08 Application For Planned Industrial Development

In addition to the requirements of M.G.L. Chapter 40A, Section 9 and the requirements, contained in (the Special Permit and Site Plan Approval sections) of this bylaw, applicants for planned industrial development shall comply with the following:

- a. Applicants for planned industrial development shall submit a development plan on standard twenty-four (24) inch by thirty-six (36) inch sheets, for the entire tract at a scale of one inch equals one

hundred (100) feet. The plan shall be submitted to the (Special Permit Granting Authority) and shall show as least the following:

1. Two (2) foot finished contours on the tract.
 2. The location and acreage of areas to be devoted to specific uses.
 3. Existing and proposed streets, parking areas, drainage and utility systems, including water and sewer, street lighting, landscaping, easements, and natural features.
 4. The proposed location of parks, open spaces and other recreational uses.
 5. Such other information as may be required by the Planning Board.
- c. The (Special Permit Granting Authority) shall obtain with each submission, a deposit sufficient to cover any expenses connected with a public hearing and review of plans, including, but not limited to, the costs of any consultant services necessary for review purposes. The Special Permit Granting Authority shall set the fee on a case-by-case basis.
- d. Where the subdivision of lots is involved, the development shall be subject to review and approval by the Planning Board under the (town) Subdivision Regulations.

IV. ENFORCING BYLAWS



IV. ENFORCING BYLAWS

A. STRATEGIES TO PROMOTE IMPROVED BYLAW ENFORCEMENT

As the old axiom says, "a bylaw is only as good as its enforcement." It is a common mistake for communities to spend large amounts of time or consultant fees to develop and enact a strong network of zoning or other local bylaws in order to help manage growth, and then to neglect to enforce them properly.

Proper enforcement requires a combination of a clear understanding of the bylaws by enforcement officials, the proper tools to aid in enforcement, and sufficient qualified personnel to carry out the increasing burden of enforcement.

Zoning Enforcement Staff. While large towns and cities frequently employ full-time zoning enforcement officers, rural communities often rely on part-time building inspectors to enforce their zoning bylaws. In rapidly developing communities, part-time building inspectors may be overburdened in attempting to carry out zoning enforcement activities in addition to their other building code enforcement responsibilities. Some growing, but rural, communities have attempted to remedy this problem by hiring shared zoning enforcement officers with neighboring communities. An inter-municipal or regional approach can also be effectively employed in hiring health or conservation officers.

Understanding Bylaws. Another problem commonly occurs when zoning officials are expected to enforce bylaws developed by consultants or local planning officials. In recent years, zoning bylaws have become increasingly complex and technical. Consider, for example, that many zoning bylaws now include such provisions as performance standards, aquifer protection standards, design review, density bonuses, and the like. Unless enforcement officials clearly understand the objectives and specific provisions of the bylaw, it is unlikely that adequate enforcement will occur.

Communities can avoid such problems by involving zoning enforcement officials in the planning process for developing new zoning bylaws. In addition, a detailed training session should be held, following the adoption of any new bylaws, to fully explain bylaw provisions and enforcement procedures.

Enforcement Tools. Changes in state law have allowed communities to employ the use of "zoning ticket" to improve and streamline the zoning enforcement process. In 1977, the state legislature adopted M.G.L. Chapter 40, Section 21D, which authorized communities to provide for the "non-criminal disposition" of violation of local bylaws and regulations. Very few Massachusetts communities have adopted the provisions of M.G.L. Ch. 40, Sec. 21D, and most still enforce bylaws through a criminal complaint procedure in the district court. This latter process is time-consuming, cumbersome, costly, and generally only used as a last resort in cases of extreme or blatant zoning violations.

"Non-criminal disposition" allows communities to enforce local bylaws by a civil, rather than criminal, process similar to minor traffic violations. The enforcement person may write a "ticket" which provides for a specific sum of money to be paid as a penalty for violation of the local law. Clearly, this tool provides opportunities for increased zoning enforcement capabilities and effectiveness in communities which adopt it. A sample "non-criminal disposition" bylaw is contained in Section IV-B.

For additional information, see A Guide to Procedures for Implementation of the Non-Criminal Method of Disposition of Violations of Municipal Ordinances, Bylaws, Rules and Regulations, available from EOCD's Division of Municipal Development.

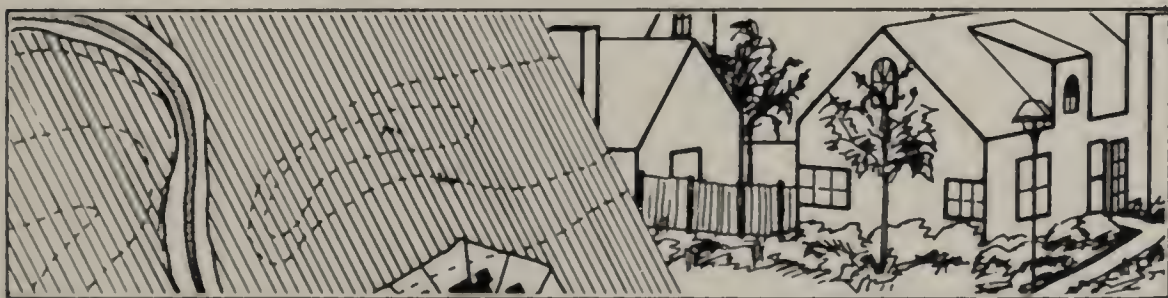
B. MODEL ZONING ENFORCEMENT BYLAW

MODEL NON-CRIMINAL DISPOSITION BYLAW

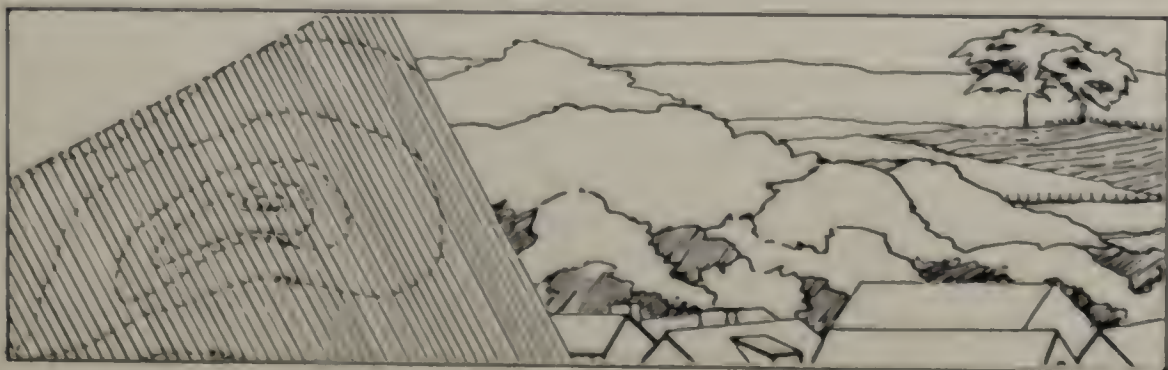
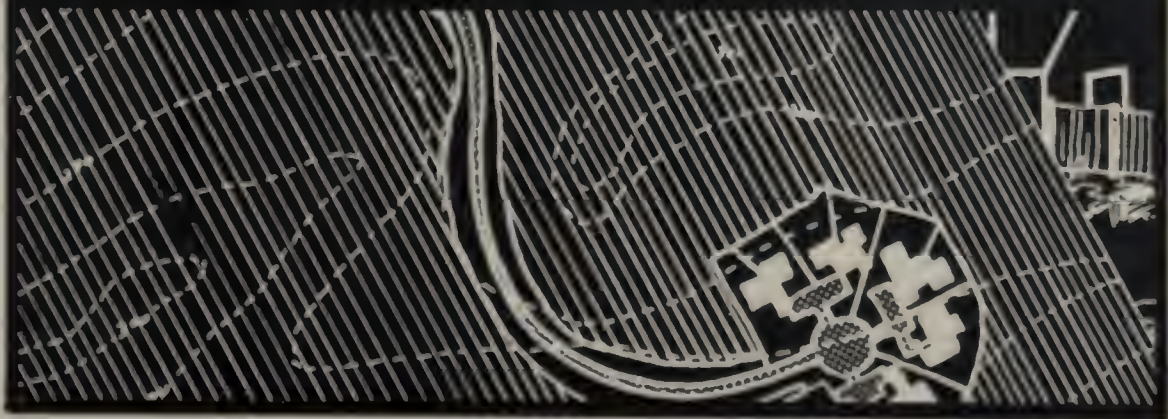
(Based on a bylaw adopted by the Town of Amherst, Massachusetts)

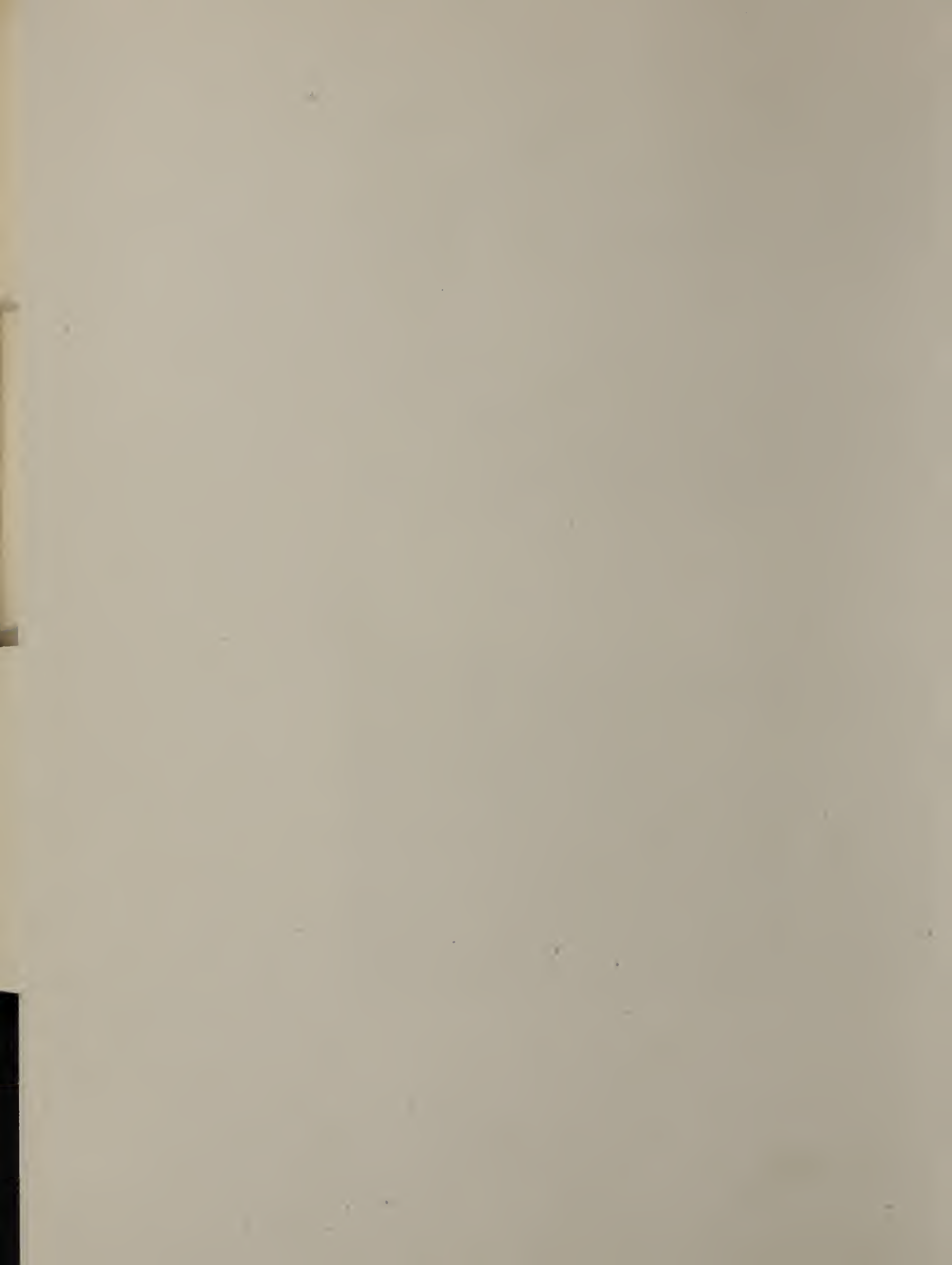
F-1 NON-CRIMINAL DISPOSITION/VIOLATIONS

- 1.00 Any violation of the provisions of this bylaw, the conditions of a permit granted under this bylaw, or any decisions rendered by the Zoning Board of Appeals or Planning Board under this bylaw, shall be liable to a fine of not more than one hundred dollars (\$100.00) for each violation. Each day such violation continues shall be deemed a separate offense.
- 1.01 In addition to the procedures for enforcement as described above, the provisions of this bylaw, the conditions of a permit granted under this bylaw, or an decisions rendered by the Zoning Board of Appeals or Planning Board under this bylaw, may be enforced, by the Building Commissioner, by non-criminal complaint pursuant tot he provisions of General Laws, Chapter 40, Section 21D. The fine for any violation disposed of through this procedure shall be one hundred dollars (\$100.00) for each offense. Each day such violation continues shall be deemed a separate offense.



GROWTH MANAGEMENT BRIEFING PAPERS





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June 1988



Prepared by Pioneer Valley Planning Commission through a grant from the Mass. Executive Office of Communities and Development.

This is one of a series of Growth Management Briefing Papers designed to assist community officials by focusing on timely, relevant issues concerning tools and techniques for the management of growth and development.

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Prepared by:
Pioneer Valley Planning Commission
June, 1988

This project was funded with the assistance of a regional planning grant from the Massachusetts Executive Office of Communities and Development

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GROWTH MANAGEMENT BRIEFING PAPER #1

June 1988



Inclusionary Zoning: Can It Work for Your Community?

Prepared by Pioneer Valley Planning Commission through a grant from the Mass. Executive Office of Communities and Development.

This is one of a series of Growth Management Briefing Papers designed to assist community officials by focusing on timely, relevant issues concerning tools and techniques for the management of growth and development.

I. Introduction

In the 1980's, rural and suburban communities across Massachusetts find themselves engulfed in an unprecedented growth and development boom. Moderate mortgage interest rates, increasing employment opportunities, and a perceived high quality of life in Massachusetts are among the factors influencing a dramatic increase in both housing prices and new housing construction. As housing price increases outstrip income levels, many people are being priced out of the opportunity to buy traditional single-family homes which dominate the Pioneer Valley housing market. In many communities, housing options other than single-family homes do not exist, primarily due to outdated zoning regulations which promote single-family homes on large lots while excluding other forms of housing. This situation forces low and middle-income residents, particularly first-time home buyers and the elderly to look elsewhere for housing. Communities attempting to grapple with these issues are faced with the dual, and often conflicting goals of controlling growth while providing for affordable housing.

II. Description of Inclusionary Housing Programs

In the Boston metropolitan area, communities have been experiencing even greater housing price increases and growth pressures for a more extended period of time than the rest of the Commonwealth. Several suburban communities, searching for viable solutions, most notably Lexington, Newton, and Reading, have experimented with innovative inclusionary zoning bylaws.

These bylaws all generally seek to achieve private market development of affordable housing by offering developers density bonuses in return for which the developer must set aside a percentage of units for low or moderate-income residents. However, each of the three communities has structured its bylaw's incentives and requirements somewhat differently.

Newton's inclusionary housing policy was the first in the Boston area, having been adopted and used on a case-by-case basis since 1968-69. Newton's inclusionary housing ordinance, adopted in 1977, is also the first to have been tested in the courts. The State Supreme Judicial Court recently dismissed a challenge to the Newton bylaw on technical grounds, but

GROWTH MANAGEMENT BRIEFING PAPER #2

June 1988



TRAFFIC IMPACTS OF DEVELOPMENT How Communities Can Better Deal With Impact Assessment

Prepared by Pioneer Valley Planning Commission through a grant from the Mass. Executive Office of Communities and Development.

This is one of a series of Growth Management Briefing Papers designed to assist community officials by focusing on timely, relevant issues concerning tools and techniques for the management of growth and development.

I. Introduction

We are all becoming increasingly aware of the traffic impacts that land development is having on our rural, suburban, and urban environments, as we experience increasing traffic congestion and travel delays. We can get a better appreciation of how to better deal with the impact of traffic increases from development or growth when we look at the basic elements of community growth: land and mobility. Looking at the inter-relationship of these two elements, we see a land use - transportation cycle which points out the cause-effect relationship between transportation facilities and land use, particularly site development.

Figure One: Land Use and Transportation Cycle

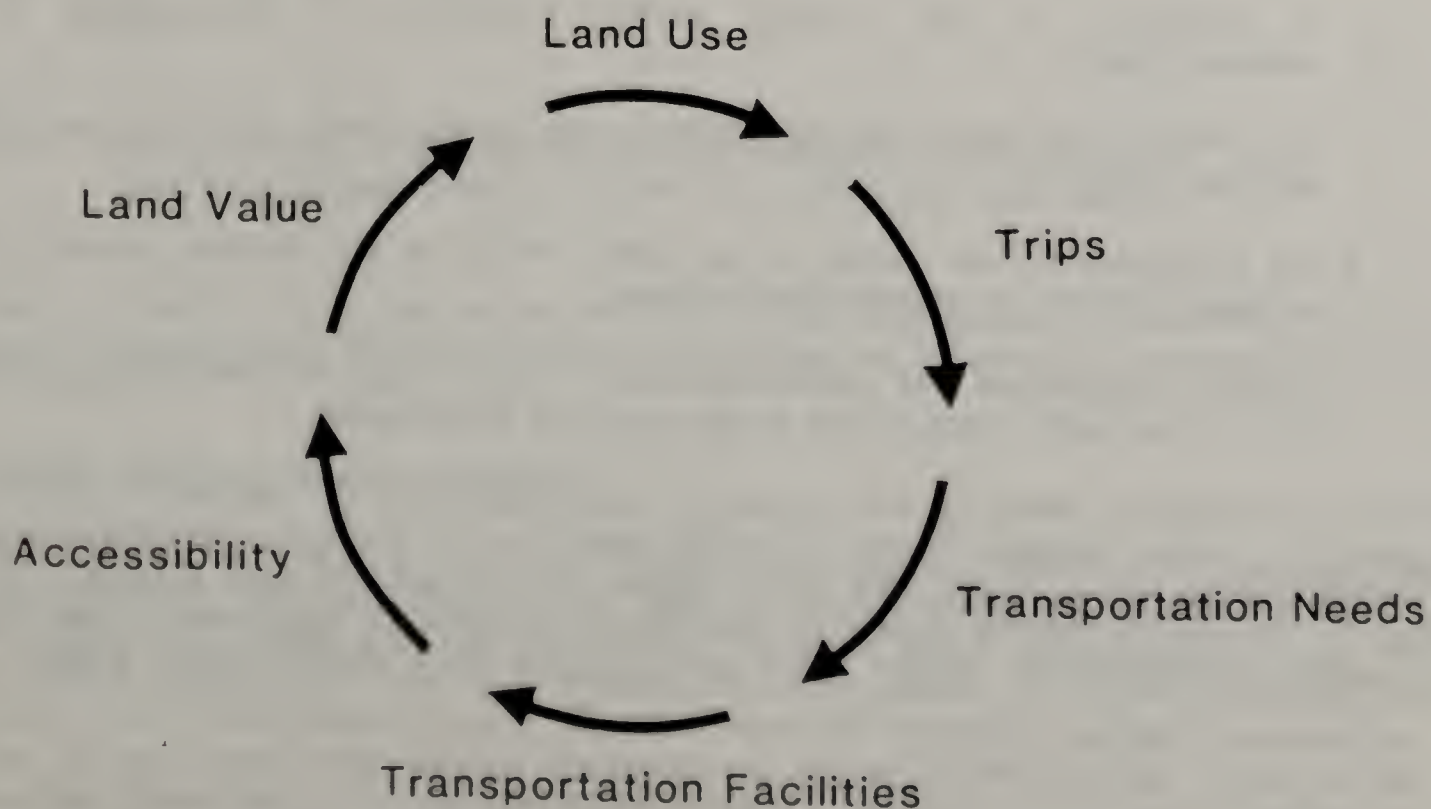


Figure 1 indicates the classical relationship between land use and transportation. Starting at the land use point, a particular land use develops the need for trips or traffic in and out of that land use. Consequently, there is a need for a transportation facility to serve that traffic and the presence of this transportation facility provides accessibility or the opportunity to move freely to and from a particular land use. This freedom of mobility and access opportunity is one feature that gives the land value, which consequently may increase the value of the land for subsequent opportunities, i.e. more development. Hence, we have somewhat of a vicious circle and we see that the element of growth in terms of land use opportunities is creating demand for transportation facilities and more accessibility.

This paper briefly summarizes some ways that communities in Massachusetts can deal with assessing the traffic impacts of proposed developments. Some of the major points that need to be considered by cities and towns are outlined very briefly with further information sources referenced herein. Keep in mind that it is not the intent of this article to present technical procedures to be utilized in the analysis of traffic impacts, rather to inform local officials and interested citizens of typical procedures helpful in dealing with the evaluation of traffic impact aspects of growth in their communities.

II. Requesting Traffic Impact Information

When a proposal in the form of a new site development plan comes before a municipal board of review and approval, the board has to make a decision on whether or not sufficient information is provided in order for them to make an informed decision as to the impact of that project on municipal services, as well as its ability (or lack thereof) to meet other established goals, objectives, and criteria of the community. Typically, a request would be made to the applicant to provide a traffic impact report.

A traffic impact report is a specialized study of the impact that a specific proposed development will have on the surrounding transportation system. The typical contents of a traffic impact report for a proposed development would include the following at minimum:

- A summary of the existing traffic conditions in the vicinity of the proposed site;
- An estimate of the traffic generated during certain peak hours by the proposed development;
- An evaluation of the impact of the added traffic on the available capacity of the adjacent roadway or transportation system;
- Specific conclusions and recommendations which might be necessary to minimize any of the traffic impacts due to the proposed development.

Such recommendations could involve geometric improvements at the intersection areas of the proposed site, minor roadway widening, traffic signal control, signage or pavement markings. A traffic impact report would also likely address the internal site plan conditions such as access in and out of the site property, vehicular and pedestrian circulation within the site, and parking within the site. Figure 2 is a typical outline for a Traffic Impact Report.

Figure Two: Typical Outline for a Traffic Impact Study

- I. Introduction
 - A. Purpose of Report
 - B. Sumamry
- II. Existing Conditions
 - A. Land Use
 - B. Transporation System
- III. Proposed Development
 - A. Summary of Development
 - 1. Land Uses
 - 2. Location
 - B. Trip Generation
- IV. Proposed Conditions
 - A. Trip Distribution
 - B. Trip Assignment
 - C. Traffic Analysis
- V. Improvement Analysis (may not be necessary for every report)
 - A. Development
 - B. Evaluation
 - C. Recommendation
- VI. Conclusions

Source: Guidelines for Transportation Impact Assessment of Proposed New Development (Draft), Appendix I, ITE Committee 6A-33

For further information, Reference #1 as noted in the appended List of References (Table I) is an excellent guide which discusses planning and design as it relates to transporation and land development.

III. Evaluating Traffic Impact Information

One of the more difficult aspects of a local community review of a project is to evaluate the traffic impact report and information and make a determination of whether or not a particular project will create a significant impact. In many cases, the community does not have professional planning staff to do a technical in-house review of a report submitted by the applicant. This is particularly true of the more rural communities. In such communities, planning or zoning boards must educate themselves to review traffic impacts. Some of the basic questions which need to be answered with regard to review of the traffic impacts of the project include the following:

- a. Is there sufficient capacity on the adjacent roadway to handle the increase in traffic due to the project?
- b. Are special improvements required to accommodate turning movements at the intersection of the site driveway with the adjacent street system?
- c. Is there a significant history of accidents in the vicinity of the site which would tend to discourage a particular access location to the site or require certain special conditions? Such special conditions may be cutback of roadside embankments or brush at the intersection areas to improve sight lines, widening of pavements areas to provide for turn lanes, improved signing to better delineate intersection areas, or traffic signal control if the project is of significant size.

These questions may not be too difficult to address for those with a technical background in this evaluation, but for those who not have that background, it may be necessary to request advice from other agencies or individuals. One good source of technical assistance outside of the community would be the regional planning agency, which can provide technical transportation staff to assist the town in reviewing and assessing the degree of impacts of specific projects. State agencies such as the Massachusetts Department of Public Works may also be contacted (through the district traffic engineer) to provide for information on existing traffic conditions and traffic counts, high accident locations, and other relevant information that may be available.

For larger development projects that are required to prepare environmental impact reports under the state environmental review process, state agencies may be required to get involved due to the nature of the project. Communities should be familiar with the Massachusetts Environmental Policy Act (MEPA) Regulations, (Code of Massachusetts Regulations 301 CMR 11.00) which includes the regulations and guidelines administered by the Executive Office of Environmental Affairs for preparing environmental impact reports on projects. MEPA establishes specific requirements for assessing traffic impacts that must be addressed during the Environmental Impact Report (EIR) process. The regulations also establish thresholds for the size and impact of projects which, when exceeded, trigger required environmental reviews. For example, if a project is expected to generate 1000 or more new vehicle trips per day, an Environmental Notification Form must be prepared. If the project will generate 3000 or more new vehicle trips per a day, a full Environmental Impact Report is automatically required.

Traffic consultants are also available to assist communities with evaluation of projects which come before the town or city for approval. Some communities retain traffic consultants to act in a technical advisory capacity to review impact reports provided by private developers or other applicants. The consultant can provide technical assistance to the community in reviewing and evaluating these projects. In one Western Massachusetts Community, for example, a traffic consultant is retained by the Board of Selectmen to prepare a traffic impact report on certain land development applications that come before the town for approval. The fee for preparing the traffic impact report is paid entirely by the developer/application as part of his permit process in the town. Reference 2 provides a good source of information for site impact traffic evaluation.

Table One: List of Useful References Relative to Traffic Impacts of Development

1. Transportation and Land Development, by Vergil Stover and Frank Koepke, Institute of Transportation Engineers, 1988.
2. Site Impact Traffic Evaluation, Notebook From Institute of Transportation Engineers' Educational Foundation Seminar, 1986.
3. Trip Generation, Fourth Edition, Institute of Transportation Engineers, 1987.
4. Guidelines for Transportation Impact Assessment of Proposed New Development (A Summary Report), by ITE Technical Council Committee 6A-33, Institute of Transportation Engineers, ITE Journal, June 1988.
5. Guidelines for Driveway Design and Location, A Recommended Practice by ITE Technical Committee 5B-13, Institute of Transportation Engineers, 1985.

IV. Asking the Right Questions

The Community review board should not be hesitant to ask questions of the applicant regarding traffic impacts and should not be hesitant to request supplemental traffic information if they feel they do not have adequate information upon which to make a decision or determination on the significance of the traffic impacts of the project. For example, if there is not sufficient information on traffic volumes and peak hour traffic times in the vicinity of the site, then specific traffic count can be requested during periods in question. The basis upon which certain trip generation estimates for the particular land development type have been made may also be questioned by the community if they are not derived according to standard procedures and references such as those in use by the Institute of Transportation Engineers (Trip Generation Report, Fourth Edition).

V. Judging the Significance of Traffic Impacts

A judgment has to be made on the significance of traffic impacts created by a proposed development. Municipal zoning ordinances may be very general, or lacking in terms of specific criteria in regard to the evaluating impacts of vehicular traffic from land development, maintaining the safety of vehicular and pedestrian traffic and maintaining the general welfare of the public. If project evaluation criteria are not specified in town or city regulations, then technical advice from outside the community should be sought in order to adequately evaluate the impacts of the projects. It is important to note that perceived impacts or emotional concerns expressed during hearings are not, in and of themselves, sufficient grounds for denial of projects relative to traffic impacts. Impact concerns must to be quantified to the extend possible with regard to such items:

- Increases in peak hour traffic volumes;
- Changes in level of traffic service due to traffic increases;
- Safety issues such as restricted sight distances at project driveway intersection areas, and;
- Adequacy of existing roadway conditions to accommodate additional traffic.

A checklist of elements which specifically relate to access location and design, and on-site circulation and parking for land development plans (i.e. site plans should be adopted as a matter of standard development review policy. Such items as indicated in Figure 3 should be included as part of a standardized review.

Figure Three: Traffic-Related Elements for Consideration During the Site Plan Review

Access Location and Design

- Spacing to adjacent public and private access
- Angle
- Curb return radii
- Throat cross section
- Throat length
- Channelization, medial and marginal
- Length, width, and taper of turn bays
- Sign location
- Sight distances
- Visibility of access drive
- Profile

On-Site Circulation and Parking

- Vehicular conflict points
- Vehicular-pedestrian conflicts
- Sight distances
- Channelization
- Delineation of internal circulation roadways
- Potential for high speeds adjacent to building
- Potential for high-speed, random vehicular movements in parking area
- Convenience of parking with respect to building entrance
- Parking dimensions
- Location of curbs/wheel stops relative to front of parking staff
- Location and design of handicapped parking staffs
- Building entrances and pedestrian circulation between the entrances and the parking areas
- Sidewalk widths
- Fire lanes
- Delivery/truck docks
- Access to solid waste containers
- Visibility of obstructions such as curbed end islands, barriers, and light posts
- Delineation of edge of development from adjacent streets

Source: Transportation and Land Development, Institute of Transportation Engineers, pp. 19, 20.

Communities can address the traffic impacts of larger-scale developments through zoning regulations, such as a Special Permit process, which provide for: a stringent review process; permit approval with special conditions; reducing the scale or

modifying the scope of the project; and requiring other mitigation measures to reduce the significance of traffic impacts.

VI. Summary

In conclusion, communities which do not already have regulatory controls in place should seriously consider adopting zoning regulations which require the preparation of a traffic impact report for large-scale developments exceeding an established threshold size, to be submitted at the time of a Special Permit or other development application. Regulations should specify the required contents of the traffic impact report. Having adopted guidelines for the applicant to follow makes the job much easier for the community by having a standardized procedure upon which to evaluate projects.

Communities should not be hesitant to ask for technical assistance which is available through regional planning agencies, the Massachusetts Department of Public Works, and local consultants to assist them with the technical review of larger projects. Depending on the scope of the project, there may be mandatory requirements under the Massachusetts Environmental Policy Act (MEPA) which will require certain traffic impact considerations independent of any town regulations.

GROWTH MANAGEMENT BRIEFING PAPER #3

June 1988



Making Cluster Zoning Work

Prepared by Pioneer Valley Planning Commission through a grant from the Mass. Executive Office of Communities and Development.

This is one of a series of Growth Management Briefing Papers designed to assist community officials by focusing on timely, relevant issues concerning tools and techniques for the management of growth and development.

I. Introduction

With the recent surge in development, and the corresponding loss of open space, many communities are seeking alternatives which permit development yet preserve the community's open space, character and quality of life. One of the most popular, yet underutilized of these alternatives is cluster development. Cluster development is a simple concept which allows a developer to develop his land with lots that are smaller than those normally permitted by the municipal zoning bylaw and in return the developer must set aside the remaining land as undeveloped open space. Cluster developments may be allowed by Special Permit in accordance with the State's Zoning Act, M.G.L. Chapter 40a, Section 9.

To date, over 200 of the 351 municipalities in the Commonwealth of Massachusetts have adopted some sort of "cluster/open space" provision in their zoning ordinances/bylaws, though many are not being utilized, or not being utilized successfully. This paper will explore issues relating to cluster development, including problems in successfully implementing cluster zoning bylaws.

II. Advantages of Cluster Development for Communities and Developers

This concept offers advantages to the developer, the homeowner, and the community. The advantage to the developer is that he/she is able to develop the same (or in some cases greater) number of units on a piece of land as would be possible with standard development; yet, the development costs are lower. Total development costs can be reduced by up to 30-50% due to reduced infrastructure expenses (roadways, drainage, sewer and water systems) as a result of decreased lot size, frontage and road length requirements. The developer is also usually able to cluster the units on those portions of the site which avoid environmentally sensitive areas with building constraints (i.e., wetlands, steep slopes. By being able to cluster the units on the more developable portions of the site, the developer is also less likely to have lots and sewage disposal systems disapproved by the Board of Health. Lastly, prospective buyers are often willing to pay equivalent or higher prices for a dwelling surrounded by an attractive environment and open space.

For the community, the reduction in frontage and lot-size requirements results in reductions in the amount of streets and utilities required. In the long term, this means lower maintenance

and repair costs to the community once the streets are accepted as municipal ways. Cluster developments also provide and preserve much needed community open space, farmland and recreation areas, with little or no community expense. With proper planning and design, coordinated cluster/open space developments can provide for greenways along waterways or provide an integrated and coordinated system of open space, buffer and trail networks throughout the community. The clustering of the units also means that the natural drainage characteristics of the site can be utilized for storm water run-off, reducing the need for potentially environmentally insensitive man-made structures. Clustering offers the ability to preserve valuable natural landscape features and geological formations by planning and developing around them.

For the homebuyer, cluster developments also offer advantages in that the reduction in development costs could be passed on in terms of reduced purchase prices. The proximity of open space, buffers and recreational areas at one's doorstep is an especially enticing amenity for homeowners.

III. Problems in Implementing Cluster Bylaws

Although many communities have adopted cluster bylaws, few actual cluster developments have been approved and constructed. From a developer's perspective, there are several common reasons for this problem:

- a. **Difficult Permitting Process/Risk of Failure:** A Cluster/Open Space Development requires a Special Permit, and many communities and neighborhoods use this process as just another gauntlet that the developer must run through. For the developer, without the community support, it is simply easier, less time consuming, and less expensive to do a standard subdivision. In seeking cluster approval, the developer may go through the time-consuming, expensive process of preparing cluster plans, applying for a Special Permit and participating in public hearings/meetings only to be denied a Special Permit by the Board of Appeals due to "neighborhood opposition".
- b. **Lack of Community Expertise:** Developers prefer to apply for cluster developments in communities that have professional staff and don't rely solely on volunteer boards. Developers may feel that professional staff have a better understanding of the advantages of cluster developments, and provide adequate guidance to both the developer and the community. Volunteer boards without professional staff are often unfamiliar with and intimidated by the details and overall concept of cluster developments, and are more susceptible to neighborhood pressures.

From a community perspective, cluster development proposals may fail due to:

- a. **Public Misunderstanding of the Concept of Cluster Development:** Some communities, boards and neighborhoods are extremely suspicious of cluster developments. They may feel that all of the benefits are derived by the developer. They may perceive that the developer is getting a "density bonus" even though the development may have the same number of units as a standard subdivision. Other common fears include concerns that open space areas within cluster developments will be developed at a future date, or that there will be liability/maintenance problems with common open space areas. In worst case situations, the public may confuse the concept of cluster with condominiums or multi-family units, creating neighborhood opposition.
- b. **Negative Past Experiences:** Some of the first cluster developments that a community may have been exposed to may not have been successful models. In some cases this

has been due to inadequate ordinance/by-law provisions or improper administration. As a result, the actual open space that was set aside may have been undevelopable anyway (i.e., wetland, floodplain, steep slopes). Or perhaps due to inadequate siting/design controls, the clustered housing areas were devoid of any character or downright unattractive. In a number of communities, because the authorizing board was unfamiliar with the concept of cluster developments or the ordinance/by-law was inadequate or vaguely worded, developers were in fact able to take advantage of the concept and the community.

IV. Improving the Track Record for Cluster

Communities which have had experience with cluster zoning bylaws are finding innovations and improvements to improve the chances for achieving successful implementation of cluster developments. The following are examples of important issues for communities to address:

- a. **Streamline the Permitting Process:** By minimizing excessive regulations and the number of hurdles a developer must cross to get a Special Permit, communities can make clustering more attractive to developers. By including very specific bylaw criteria for approval or denial of Special Permits, communities can minimize the likelihood that emotional opposition will lead to the denial of Special Permits for otherwise high-quality cluster projects.
- b. **Don't Call it Cluster:** The term "cluster zoning" has become widely misinterpreted and misused in many communities. It is frequently associated in a negative context with forms of development communities do not wish to attract. "We don't want any condos or clusters" is commonly heard. As a result, several western Massachusetts communities have recently adopted "open space community bylaws". The title for these cluster bylaws conveys clearly that their principal objective is to preserve open space by clustering single family homes.
- c. **Provide Incentives for Developers:** A number of communities offer a "density bonus" (allowing a greater number of units than would be permitted in standard development) as a way of inducing developers to participate in a "cluster/open space development". On the other hand, many communities and developers feel that the reduction in infrastructural costs are enough of an inducement for a developer and no other is required. Other communities, while not offering an increase in the number of dwelling units on the site, will offer the opportunity for varied housing types (two-family, three-family or even multi-family dwellings) in the development. While keeping the total number of units constant, this alternative may result in a reduction in the actual number of structures and building lots, thus allowing for more area to be set aside as open space.
- d. **Achieve Collateral Community Objectives:** Some communities are beginning to investigate and offer the alternative of a density bonus" to a developer if a certain number units are set aside and offered as "affordable" housing in the interest of increasing the availability of such housing opportunities in the community.
- e. **Protect Community Interests:** Most communities which have had experience with cluster developments find that when bylaws are properly drafted and administered, they do work and are an asset to the community. But the key words are "properly drafted and administered". The bylaw must be carefully crafted to reflect the

communities' needs, yet provide the developer with an adequate incentive. The ordinance/by-Law should be clear, concise and explicit as to exactly what is expected of the developer. Developers should not be put in the position of having to guess what the permit granting authority is looking for, and all parties find it difficult to negotiate without established parameters. Cluster developments are most successful when the developer and the community work together, from initial concept through the completion of the project. In order for this to work, both parties must clearly understand the benefits of such a development.

V. The Need for Improved State Legislation on Cluster Zoning

Massachusetts is currently under extreme development pressure, and cluster developments may be one of the few and most effective ways to: preserve dwindling open space; reduce growth pressures; preserve rapidly disappearing farmland; and provide for a greater mix of housing opportunities. Clustering could help to provide affordable housing in a state where housing prices are escalating beyond the means of the average family.

In the view of many planners and academicians, cluster zoning will be an increasingly crucial tool in managing Massachusetts' growth and development in the coming decade. Large lot zoning and development is rapidly and permanently altering the character and open space of Massachusetts communities. Unless cluster development can be made a more viable and attractive option, Massachusetts' unique communities will soon become an undifferentiated mass of suburban/exurban sprawl.

State Legislative changes to the Zoning Act are needed to eliminate the requirement for cluster development by Special Permit only. Communities should be able to allow by-right development of cluster projects, and should have the option to make clustering mandatory in certain special resource districts, such as aquifers and farmlands. These legislative changes are needed by communities across the Commonwealth, and they are needed soon.

GROWTH MANAGEMENT BRIEFING PAPER #4

June 1988



Dealing With Large-Scale Development in Rural Communities

Prepared by Pioneer Valley Planning Commission through a grant from the Mass. Executive Office of Communities and Development.

This is one of a series of Growth Management Briefing Papers designed to assist community officials by focusing on timely, relevant issues concerning tools and techniques for the management of growth and development.

I. Introduction

Due to Massachusetts' booming growth and increasingly sprawling development pattern, rural towns which were once secure from growth pressures are now being faced with increased development including large-scale residential and commercial projects. In smaller towns, large-scale projects can severely tax the infrastructure, environmental resources and volunteer governmental boards which serve these communities. Even more importantly, communities often find that their zoning bylaws are totally inadequate to regulate the impacts of large-scale developments, leaving the community relatively defenseless.

For rural communities, the impacts of large-scale development can be overwhelming: traffic clogging narrow rural roads; public sewer or water demands exceeding local capacity; increased costs for public services such as police and fire protection or solid waste disposal which threaten to over-stress already tight budgets; environmental degradation, and the loss of open space or rural character. But such development may also have positive attributes, if it is undertaken sensitively, on a phased basis, and is well-planned to meet community goals and needs (such as providing jobs, affordable housing, or an expanded tax base).

This paper will explore methods small towns can use to:

- a. prepare for large-scale development before it occurs;
- b. evaluate the impacts of large-scale development; and
- c. negotiate with developers to mitigate project impacts and achieve a well-planned project.

II. Preparing for Large-scale Development Before It Occurs

Perhaps the best advice for rural communities is to follow the old Boy Scout motto: "Be prepared". This may be hard advice to follow for sleepy New England towns which have been relatively unchanged for decades. Unfortunately, as many communities have discovered, once a large-scale development proposal is submitted to the community, it is often too late to "wake up" and realize that local zoning or subdivision regulations are inadequate or in need of upgrading. New zoning controls adopted after formal submittal of a development proposal will not be legally binding, in most cases, on the proposed development. Consequently, rural communities need to plan for growth well in advance of its arrival.

Many Massachusetts communities have adopted growth management tools to increase local control over and mitigate the impacts of large-scale development. Controls such as: **special permit requirements for large-scale developments; site plan approval; performance zoning; requirements for community/environmental impact assessments; and up-to-date subdivision regulations** are all useful local tools for managing large-scale developments. Many of these techniques are described in detail in the "Tools and Techniques" section of The Growth Management Workbook.

III. Facing a Large-Scale Development: Internal Resource Assessment

One of the first steps a rural community can take when it is faced with a large development project is to assess the communities' internal capabilities for reviewing the development's impact. A survey of available community resources will help to establish what citizen expertise and data base is available to the community, and determine what outside advice is needed to fully evaluate the impacts of a development. These resources include citizens of the community who may have a specific skill or expertise that can be employed to assist in the evaluation process. Expertise that will be of use include, for example, engineers who can evaluate the project design site plan, and waste disposal systems; and geologists, hydrologists or other scientific professionals that can determine the environmental impacts and water needs of the project. Business professionals can be utilized to analyze the financial impacts and potential infrastructure costs of the project. Employing the local expertise of the community not only saves the town considerable money but also ties the citizenry into the planning and decision-making process that will guide the growth.

IV. Tapping External Resources: Regional Planning Agencies and State Assistance

The community's regional planning agency can often provide technical assistance in planning and implementing mechanisms that will minimize development impacts and promote the proper phasing of development. These agencies can also suggest methods for funding studies and strategic plan developments and often will assist in grant proposal writing. These services are generally provided free or at a very reasonable cost to the community.

There are several state agencies which can also be of assistance to communities. The Massachusetts Department of Revenue can provide assistance in financial management, capital expenditure planning, budgetary analysis and other advice concerning municipal fiscal matters.

The Mass. Executive Office of Communities and Development offers several programs that are designed to assist towns in planning and preparing for growth. These programs range from advice and technical assistance to planning grants. Grant programs available include:

- a. Strategic Planning Grants - Short-term planning grants to communities to develop land use plans or regulations, need analysis, and community education. Program also offers mini-grants or special needs grants to assist communities in addressing specific problem areas.
- b. Incentive Aid Program - Grants to communities to strengthen the operational management capacity of municipal departments and systems. For more information on these grants and eligible activities, contact EOCD.

V. Using Technical Consultants

When specialized advice is needed by a community, they, may often, must rely on private sector consultants to provide this type of expertise, particularly in the case of engineering

and other scientific evaluations. Providing a means to finance the use of skilled professionals without overstressing a limited municipal budget is a problem small towns are grappling with.

A number of Massachusetts communities have established zoning regulations requiring that the burden of proof concerning aspects of development shall be placed upon the developer. This makes it the responsibility of the developer to pay for the costs of any consulting or engineering services which may be required to evaluate the impacts of new development.

Another method to obtain funds for consultant services is to develop a fee structure that is consistent with the cost of municipal services. Many communities have not updated their fees for filing applications, performing perc tests, providing Conservation Commission services, or reviewing development plans since they were first instituted in the community. Establishment of fees which represent the current cost of operations will help a community cope with the rising costs of professional services as well as the increased costs of daily operation of a small town government.

VI. Projects Requiring Environmental Review Under MEPA

For those development projects which are being undertaken with state grants or require state permits, the Massachusetts Environmental Policy Act (MEPA) may be triggered. MEPA requirements are that the project proponent prepare a review of environmental impacts which would result from the project and require alternatives for project development to be accessed. The intent of MEPA is to avoid or minimize the environmental impacts which would result from the project. Proposed amendments to MEPA would allow communities to trigger MEPA review of projects not requiring state funds or permits, but which would have significant local impacts. The MEPA process can be extremely useful in providing communities with detailed information and impact assessments related to large-scale developments.

VII. Information Necessary to Evaluate Large-scale Developments

Whether a community is reviewing a proposed large-scale development under MEPA or its own site-plan approval process, there are many types of information necessary for proper evaluation, including data on:

- a. Project Site - Natural landscape characteristics including soils, slope, vegetation, wetlands, groundwater, stormwater runoff, current land use;
- b. Project Layout - Site plan illustrating size, location and design of all structures, parking areas, roads and utilities;
- c. Water Supply - Anticipated water consumption, source of supply, impacts on municipal supplies or groundwater resources;
- d. Waste Disposal - Anticipated volumes of sewerage, method of disposal, impact on municipal treatment facilities or groundwater; Anticipated volumes of solid waste, method and cost of disposal, impact on municipal landfill;
- e. Municipal Services - Impacts on community's ability to provide public services such as schools, police and fire protection;
- f. Transportation - Access to proposed development, anticipated average daily traffic generated, impacts on existing roads, new roads and maintenance costs;

- g. Zoning - Consistency with existing regulations;
- h. Economic Development/Fiscal Impacts - New job creation, impacts on municipal tax base;
- i. Aesthetics/Community Character - Design, signage, layout and overall impacts on community character;
- j. Secondary Growth Impacts - Anticipated spin-off growth impacts such as gas stations, grocery stores, retail stores and restaurants.

VIII. Reviewing Development Information and Negotiating with Developers

When a town has been given all the required information by the prospective developer, it will be necessary to evaluate this information as a whole. If the development is large, it may be useful to establish an "all boards" development review team (if not already an established bylaw) that will focus on the development. This can be made up of members from each of the town boards and experts that can be recruited from the community. The team will be charged with evaluating all the information, its suitability to the town from an environmental, financial and cultural stand-point.

This "all boards" team will report to the Planning Board on their findings and any concerns they have with the project. In this way, the Planning Board will have a resourceful advisory group that focuses on the project allowing them to continue with their day-to-day work and not be overwhelmed with the review of a large project. A further advantage is that each town board will receive and review the development at the same time. Each board has the opportunity to negotiate with the developer to rectify problems and mitigate project impacts before final plans are submitted for formal review and approval. In this way, all concerns are addressed at one time, instead of portions of the project being approved in a piece-meal manner.

In negotiating with developers, many of the regulatory tools (i.e., special permits, site plan approval) can help to establish negotiating "groundrules" by spelling out criteria and conditions that must be met before a permit is issued. Such established groundrules will be advantageous to developers in designing projects consistent with community goals, and will eliminate potential disputes down the road.

Perhaps the most important thing to keep in mind when negotiating with developers is that both the town and the developers have needs that must be met. It is vital to fully evaluate all the available information, consider both sides and keep open lines of communications.

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GROWTH MANAGEMENT BRIEFING PAPER #5

June 1988



The Myth of Large-Lot Zoning as a Tool for Preserving Rural Character

Prepared by Pioneer Valley Planning Commission through a grant from the Mass. Executive Office of Communities and Development.

This is one of a series of Growth Management Briefing Papers designed to assist community officials by focusing on timely, relevant issues concerning tools and techniques for the management of growth and development.

I. Introduction

Throughout Massachusetts, a new landscape and land use pattern is emerging. Rather than living in urban centers or their surrounding suburbs, more and more people are opting to live in predominantly rural towns. Attracted by the landscape and the traditional New England character of smaller communities, these new residents are willing to commute greater distances to work rather than live closer to urban/suburban areas. Historically, rural towns have experienced slow, incremental growth and are not prepared for the surge of building which threatens to eliminate the open space and rural character which attracted residents in the first place. This new development pattern does not follow the colonial trend of small village clusters. Rather, it is typified by low-density residential growth spread along roads throughout the community. Unfortunately, many communities realize too late that this sprawling residential development pattern is mandated by their zoning regulations!

II. Defining Rural Character

Much of what we think of as traditional New England character was established by the settlement patterns of the first European immigrants, particularly the British. The result was an agrarian landscape with open agricultural fields or pasture lands surrounding isolated farm houses, or a cluster of houses forming a village group. Houses in the village group were clustered together for both economic and social reasons. Agricultural lands were operated as a farming cooperative, with individual property owners joining their lands to farm them in common. At harvest, each property owner was entitled to a share of harvest proportionally based on the amount of acreage he held in the cooperative. In order to get the most economic benefit from the land, houses were clustered together to preserve agricultural lands, saving the best lands for production. Clustering the homes also served social needs - providing residents with a sense of community and opportunities for social interaction. From this colonial townscape many communities grew and evolved, some eventually becoming urban in nature. Today when we define rural character, we are referring to the traditional land use pattern with well-defined village centers surrounded by agricultural fields or forested hillsides.

III. Requiring Low-Density Residential Growth

In an effort to preserve rural character as well as protect private wells and sewerage systems, communities throughout Massachusetts have elected to increase minimum lot size and frontage requirements. (For an example of zoning requirements in one area of the state, see Figure 1.) By establishing large lot zoning, community officials believe that they are protecting the community's open space, farmlands, and rural character. Such techniques have, however, proven counterproductive. Rather than promote rural landscapes, large-lot zoning completely covers the landscape with streets, houses, front yards, side yards and back yards. The only "open space" remaining is the yard area between houses. One striking example of the results of large-lot zoning is in Darien, Connecticut. Ninety-eight percent of Darien, Connecticut is developed, of which 20 percent is comprised of commercial/retail uses, 12 percent includes dedicated open space (a golf course, parks, two town beaches, etc.) and the majority, 66 percent, is strictly residential. The northern two-thirds of the town is completely carved up into residential lots. (See Figure 2.) Large-lot zoning (a three-acre minimum lot-size requirement) was adopted in an effort to preserve rural character. Despite the town's intentions, large-lot zoning did little to protect the rural landscape and, in fact, encouraged low-density suburban sprawl.

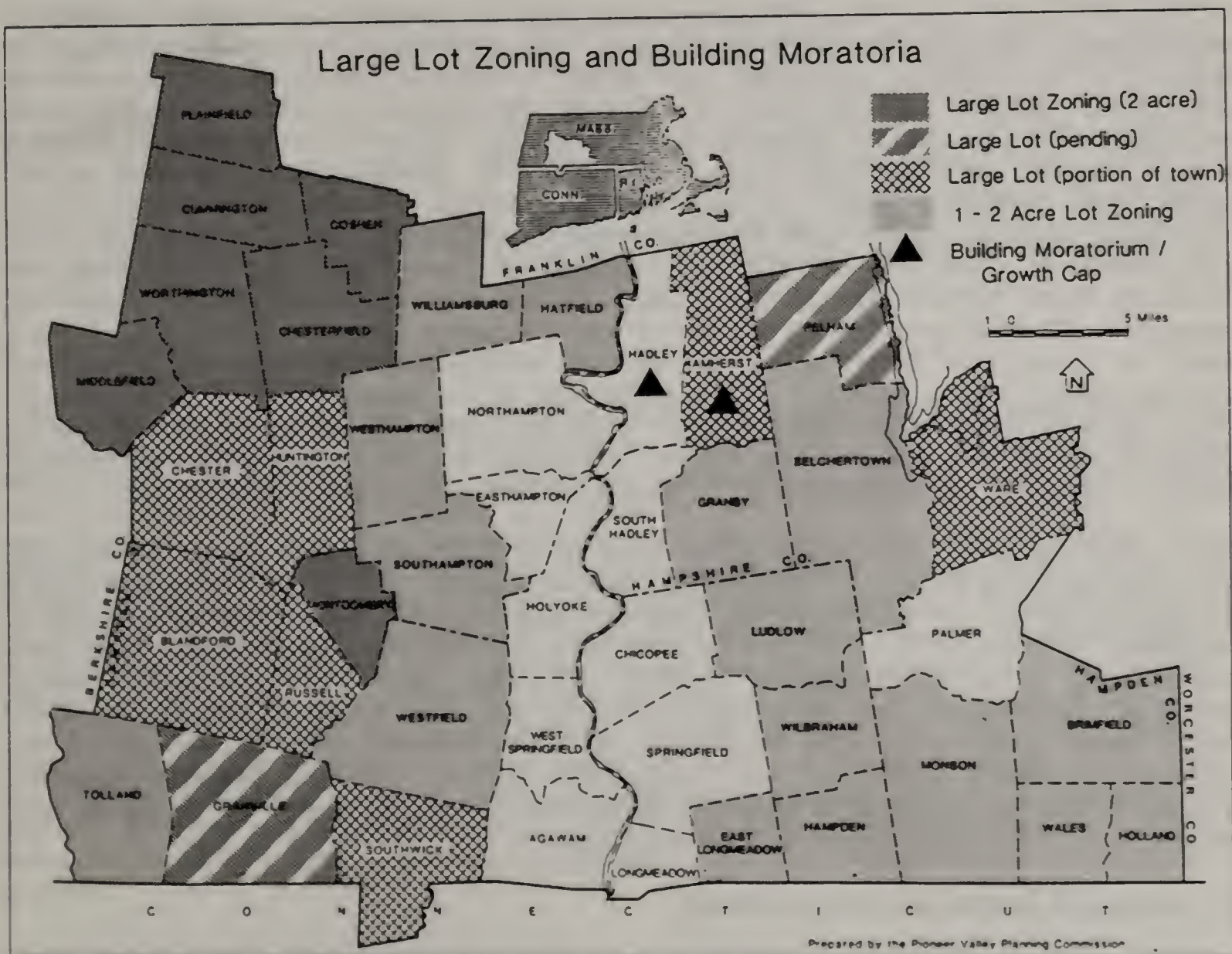
Figure 1

Large - Lot Zoning in Darien, CT.



Source: Center for Rural Massachusetts

Figure 2



Another example of the effects of large-lot zoning can be found in Freetown, Massachusetts. Freetown is a semi-rural community about 45 miles from Boston and is bordered by two employment centers - Fall River and New Bedford. Freetown has no zoning bylaw. Instead, zoning dimensional requirements are specified in a town bylaw adopted in the early 1980's. Because the majority of the town is serviced by private wells and individual septic systems, a minimum lot-size requirement of 70,000 square feet was selected as a measure to protect these private systems from contamination. The large-lot size has greatly influenced the landscape pattern of new development and, in turn, the types of people it attracts. Traditionally, Freetown was blue collar in nature, attracting predominantly working class residents. Since the 1980's, a real estate trend of larger, more expensive homes has placed housing opportunities out of the price range of the typical Freetown resident, and attracted instead a different tenant - the professional who is willing to commute greater distances to work. Freetown is changing from a blue-collar rural community to a bedroom community for the Boston area. Many life-long residents of Freetown worry that if the trend continues the town will become too expensive for their children and the elderly.

IV. The Costs of Sprawl

In addition to the visual havoc it can generate, large-lot zoning places greater demands on environmental resources and town infrastructure. The conversion of land from agricultural or forest use to large-lot residential use results in natural resource consumption and degradation, the need for public service extensions, and changes in public costs and revenues associated with the large-lot development. Of particular interest to local government is the latter. Overall, the conversion of agricultural land to residential use will result in net public costs exceeding public revenues generated by the residential development. The low-density suburban sprawl type of development resulting from large-lot zoning is the most expensive form. This point is very well illustrated in a study performed by the American Farmland Trust, "Density-Related Public Costs". In this study Loudoun County, Virginia was selected as site suitable to evaluate whether or not low-density, large-lot development is more costly to service than higher density, or clustered development. For Loudoun County, the average annual revenue shortfall or net public cost to the county would be approximately three times as large (\$2200 per dwelling) from the lowest density residential community (large-lot zoning with one dwelling unit per 5 acres) as from the highest (\$700 per dwelling) density community (4.5 units per acre) ("Density-Related Public Costs", page 5).

Why would the public costs generated by large-lot developments greatly exceed the revenues from the additional taxpayers? The greater costs are a direct result of the low-density nature of large-lot zoning. According to the American Farmland Trust study relatively low-density residential development (one to five or more acres per dwelling unit) generates higher net public costs primarily because it requires inefficient expenditures for public school operating, instructional, and transportation services, and also because it creates potentially higher public liabilities for road maintenance and future provision of public water and sewer services. Of special interest to many communities are any additional education expenses. Typically large-lot developments attract larger families than higher density developments, thus adding to the educational burden of large-lot zoning.

V. Large-Lot Zoning and Legal Concerns

In 1942, the Massachusetts judicial system became involved in the debate over whether or not lot-size requirements could be considered excessive. Could a town establish a minimum lot-size requirement of one acre and not become exclusionary in nature? The Massachusetts Supreme Court and Appeals Court have defined large-lot zoning as zoning which sets excessive, minimum lot-size requirements. What is considered excessive depends greatly on the circumstances surrounding the designation of the lot size, particularly protection of natural resources. Since 1942, the courts have decided large-lot zoning cases concerning lot sizes of one acre or more. The following paragraphs will briefly summarize a few of the important decisions. (For more information regarding court decisions, please refer to "Large Lot Zoning," Land Use Manager, Vol. 1, Edition No. 5, May 1984).

It is not valid to use large-lot zoning solely as a means to preserve rural character because this objective has no relationship to the purposes of zoning--public safety, health or welfare. In 1964, the Town of Sharon enacted a minimum lot size of 100,000 square feet in order to encourage "the preservation of land in its natural state or more rural state for recreational or conservation purposes". The Massachusetts Supreme Court decided that the lot size was excessive for the purposes of zoning and the intent of the bylaw could be met at a lesser lot size. Although the intent of the bylaw was to provide amenities to the general public, it should not do so at the expense of the individual property owner. (See Aronson vs Town of Sharon, 346 Mass. 598 (1964) for the decision.)

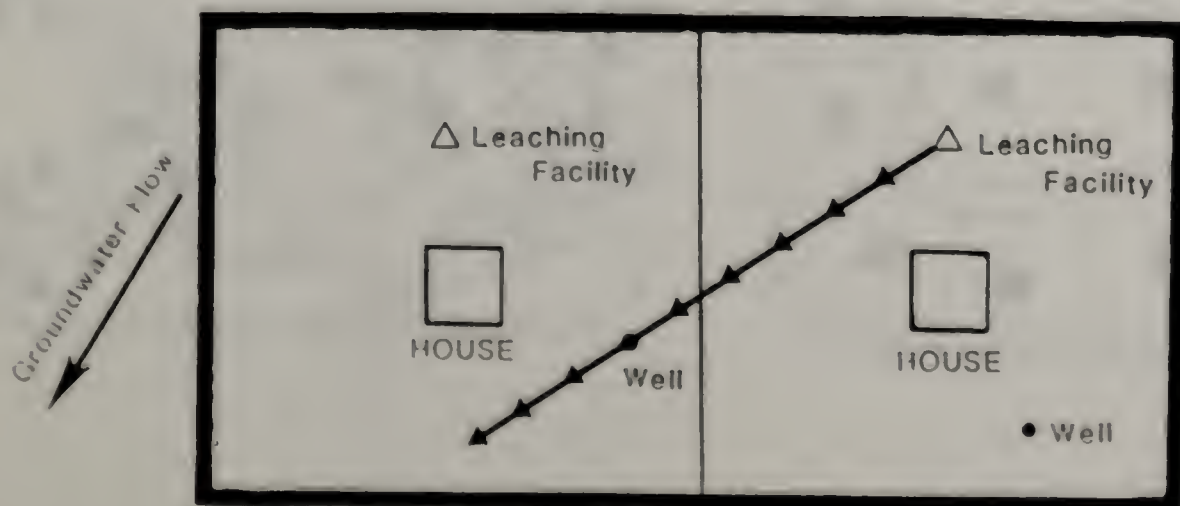
In a related case, large-lot zoning was upheld because there was no public water supply or municipal sewage system, in Sherborn, Massachusetts and new dwellings required private wells and on-site septic systems. In order to protect the quality and service of these private systems, Sherborn required a minimum lot size of 87,120 square feet (two acres). Because the town was able to show a reasonable relationship between the two-acre lot size and the sewage and water conditions of the town, the Appeals Court upheld the bylaw. See Wilson vs Sherborn, 3 Mass. App. Ct. 23F (1975). However, it is important to note that providing evidence for a bylaw's validity lies with the town. If the town establishes a policy based on a public safety, health or wealth issue the town must offer evidence to support the adopted policy. The court's decision indicates that, if a community wishes to cite environmental concerns when formulating a minimum lot size, the community must base its decision on scientific evidence.

VI. Groundwater and Large-Lot Zoning

Half the nation's population gets their drinking water from ground water and close to 20% of these people depend solely upon on-site domestic wells as the source of that supply. In Massachusetts, approximately seven percent of the population receives their water from private, on-site wells. These residents live in the 275 municipalities statewide where all or some portion of the population has no access to a municipal water system ("Private Well Contamination in Massachusetts," page 9). These towns are rapidly recognizing the danger of groundwater contamination and are looking to large-lot zoning as one way to safeguard their supplies. In the past years, municipal officials relied on enforcement of the Massachusetts Environmental Code (Title V), which dictates a minimum 100-foot distance between a septic system leaching facility and a well, to protect groundwater wells. This distance is designed to eliminate coliform and pathogenic bacteria through alteration (die off) and filtration. Today contamination concerns are more likely to focus on chemical contamination and municipal officials are working to reduce housing density as one way to safeguard these supplies. Common sense would seem to suggest that large-lot zoning would reduce the density of wells and disposal systems and therefore reduce the likelihood of contamination incidents.

Unfortunately, many wells are contaminated as a result of the orientation of septic system and well rather than the size of the lot. The septic system plume follows the orientation of groundwater flow and may be carried directly toward a water supply (See Figure 3).

Figure 3
Well Contamination as a Result of the Orientation of Septic and Well.



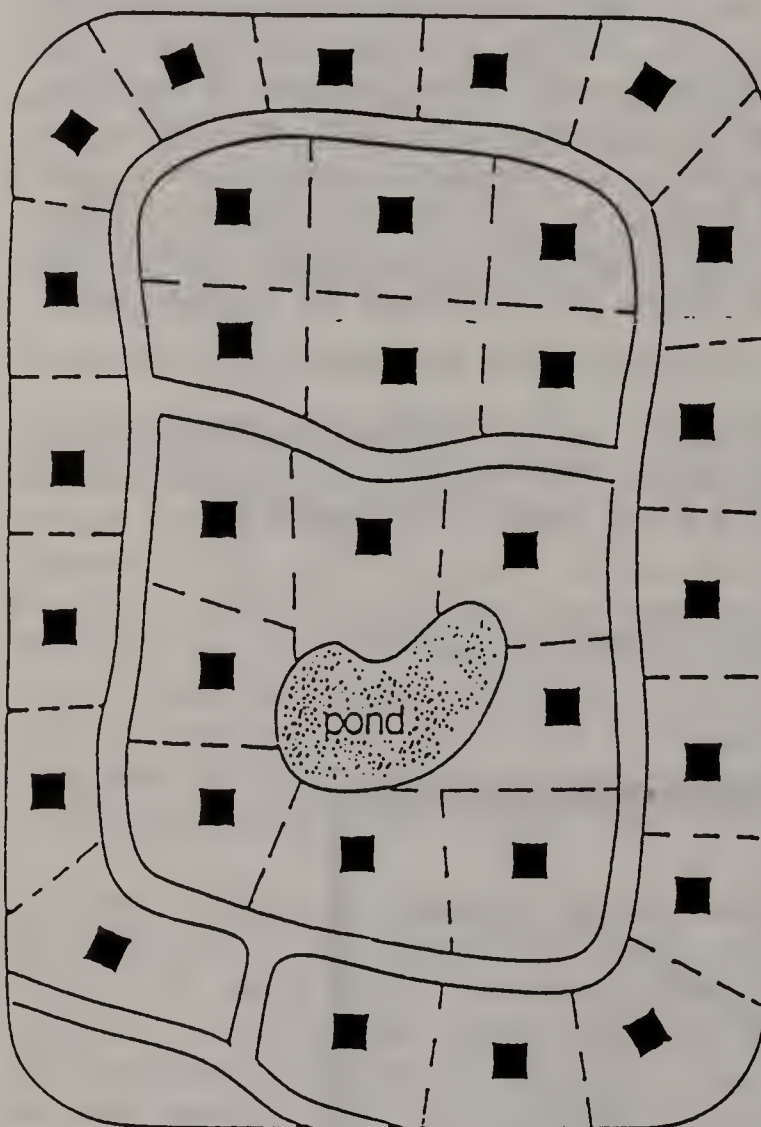
Thus, while large lot zoning would appear to provide a simple way to safeguard a community's water supply, the answers are never simple. The best method to safeguard these wells would be to analyze groundwater flows and groundwater elevations to determine safe zones of supply and disposal.

VII. Alternatives to Large-Lot Zoning

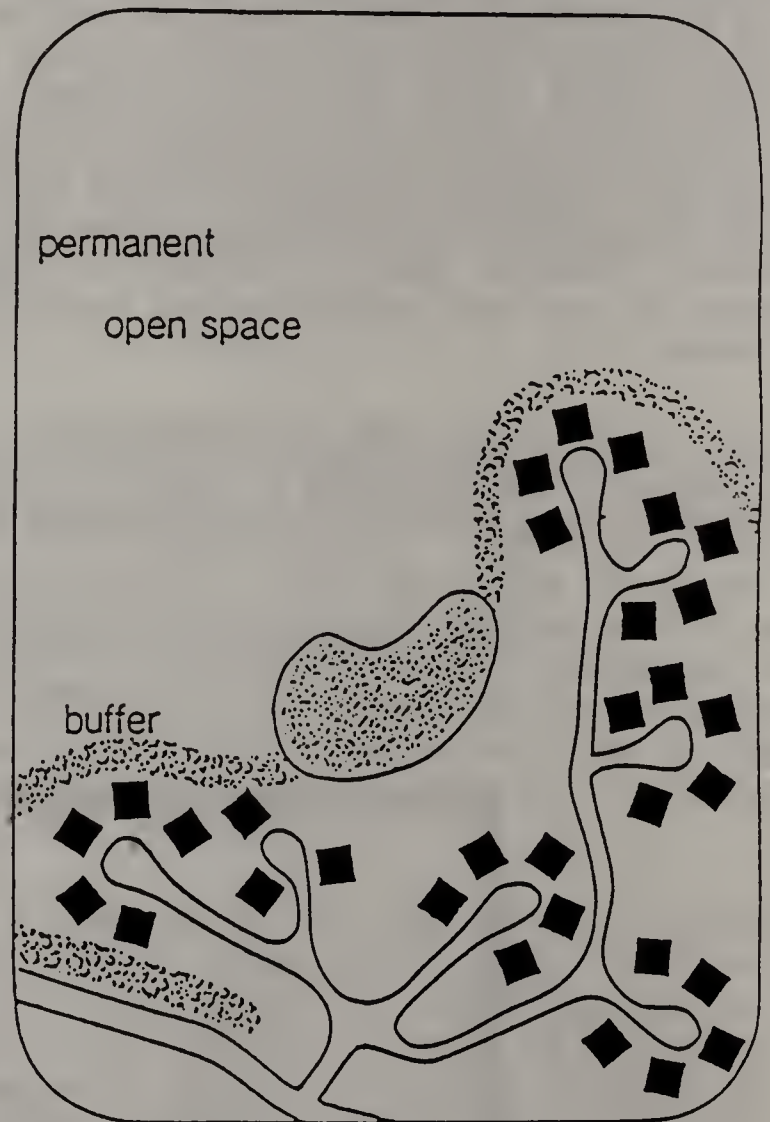
In order to effectively preserve rural character and the protect active agricultural lands, communities must look to creative new land use regulations which, in seeming paradox, are necessary to encourage traditional New England development patterns. Most existing local land use regulations encourage low-density suburban sprawl and promote the destruction of open space and farmland. Lands suitable for farming are also ideally suited for development.

Current land use regulation does not allow replication of what made the New England landscape so attractive: a small cluster of houses surrounded by open agricultural fields or wooded lands. Placement of houses on separate lots up and down both sides of the street precludes a common open area. Opportunities for creative landscape and housing design are restricted.

Standard Subdivision Development



Open Space Community Development



An open space community or cluster development bylaw encourages flexibility in site design and promotes the traditional New England village setting. With this land-use technique, developers have the option of clustering units close together in one part of the development site and saving the open space around the development as active farm-land or conservation land (See Figure 4). An open space community offers more benefits than a conventional subdivision, especially in efficiency in land use and services, and the preservation of natural features. By placing the dwelling on smaller lots in close proximity to one another, the public costs associated with the development and the developer's construction costs are lower, both saving expenditures on roads, infrastructure and public services. Clustering allows the preservation of natural features by concentrating dwelling units on the least environmentally sensitive portion of the parcel while minimizing the impact of the development on farmland, open spaces, scenic areas, waterways, trees, slopes, and other significant natural features that help control stormwater runoff and soil erosion.

In an open space community or cluster development, all land within the parcel boundary that is not dedicated as streets and other development could be managed in the following three ways: First, the land could be dedicated to the Town for a park, conservation land or community gardens. It would be the Town's responsibility to maintain the land. This measure would require approval at a Town Meeting in order for the town to accept the property. Second, a non-profit organization, such as a local land trust, could accept the land for conservation uses. Finally, the developer could be required to establish a community association, an organization composed of all residents of the open space community, to oversee the protection of open space and its maintenance. The association may decide to put in a playground, park, or garden, or lease it to a local farmer for agricultural production. No matter what option is selected, land that is conveyed is not eligible for future development, usually through a deed restriction. No new housing can be placed in designated open space areas.

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June 1988



Using Site Plan Review/ Approval Effectively

Prepared by Pioneer Valley Planning Commission through a grant from the Mass. Executive Office of Communities and Development.

This is one of a series of Growth Management Briefing Papers designed to assist community officials by focusing on timely, relevant issues concerning tools and techniques for the management of growth and development.

I. Introduction

As communities grow and face development pressures, they often find that existing zoning bylaws are inadequate to protect the needs and goals of residents. The Site Plan Review/Approval process helps to address this inadequacy by affording communities the opportunity to review and control the layout and design aspects of a project to minimize its adverse impacts on the existing conditions. This process requires the developer to submit detailed and accurate site plans for a development proposal, just as he would for a residential subdivision. Whereas the subdivision review process normally governs only residential developments, the Site Plan Review/Approval process can open commercial and industrial projects to the same scrutiny. It enables the community to conduct a careful, comprehensive review of such projects to determine their impact.

II. Requiring Adequate Information in the Site Plan

The first step in implementing a successful site plan review or approval process is to require the proponent to submit adequate and accurate information on the site plan. This information should be sufficient to allow you to determine (among other items) layout of structures, parking, circulation patterns (both pedestrian and vehicular), utilities (both on-site and public), storm water run-off, and plantings/ landscaping. The site plan should, in all cases, be required to show the following:

- dimensions, lot size, frontage, setbacks of structures, and describing compliance or non-compliance with all zoning requirements;
- topography (at contour elevations commensurate with the scale of the project);
- location of water bodies, wetlands and floodplains;
- location and dimensions of all structures (both existing and proposed);
- lowest floor/basement elevation (floodplain);
- location of all driveways;

- location of parking areas;
- location and elevation of sanitary sewer/septic system and water lines/wells (gate valve sizes, materials, etc.) and all wells within 200 feet
- location and elevation of sewer and water tie-ins (type, size, materials, etc.);
- location of drainage/run-off (including swales, catch basins, etc.);
- location/distance to nearest fire hydrant;
- location of proposed lighting.

In addition, all plans should be required to be drawn at a standard engineering scale of 1" = 40' (the scale that most Subdivision Plans and Approval Not Required plans are drawn to). Site plans should be drawn and stamped by a Registered Land Surveyor/Engineer. Recognizing the expense of such a plan, a community may find it appropriate to exempt some projects (for example, single-family residences and their related accessory structures, interior alterations and exterior facade changes) from this provision, but quick sketches on the back of envelopes should be discouraged.

III. Site Plan Review or Site Plan Approval: Determining Which Process is Best for Your Community

Since the Site Plan Review and Site Plan Approval processes differ somewhat, it is important to examine both processes carefully before determining which best meets your community's unique needs:

Site Plan Review requires the submittal of plans and information and the review of these plans by appropriate municipal departments, Boards and Commissions, but the comments and recommendations are advisory and do not have to be implemented by the developer.

Site Plan Approval is essentially a Special Permit granting process. It requires the submittal of plans and information and the review of the plans by appropriate municipal departments, Boards and Commissions, but the proposal must be approved by the designated local Board and any comments or recommendations subject to the permit granting criteria of the Board must be implemented and complied with by the developer. This is a process similar in nature to the review and approval of Definitive Subdivision Plans with which most communities are familiar.

IV. Site Plan Review

In this process the Site Plan is submitted to, and reviewed by, all appropriate local Boards, Commissions and Departments to ensure that a project is in conformance with local regulations and required local permits. Site Plans can be reviewed in conjunction with the application for a Building Permit or a Special Permit, as follows:

a. Site Plan Review with Building Permit Application:

The site plan must be submitted to the Building Inspector along with the Building Permit Application. At the same time, the Applicant must also submit copies of the site plan to the appropriate municipal boards for their review. After their timely

review, the boards will send their comments and recommendations to the Building Inspector and the Applicant. Section VI contains a discussion of procedures for better coordination of the site plan review process in relation to issuance of a Building Permit.

b. Site Plan Review with Special Permit Application:

When an application is filed with a Special Permit Granting Authority for a Special Permit, a complete site plan must be attached. Prior to its rendering a decision on the application, the Special Permit Granting Authority should circulate the site plan and application to all other appropriate boards for their review, comments and recommendations. The site plan and application should be circulated as early in the Special Permit review process as possible as the Special Permit Granting Authority has strict time limitations in which it must render its decision. A comprehensive review of the project by all of the municipal boards will enable the Permit Granting Authority to make a more informed and accurate decision as to the anticipated impacts of a proposed project on the community. However, the Permit Granting Authority's decision must be based only on the standard criteria established in the Special Permit section of the zoning bylaw.

V. Site Plan Approval

Site plan approval functions similarly to Site Plan Review with an important difference:

All comments and recommendations on the Site Plan are not just advisory but can be made binding on the applicant by the Permit Granting Authority.

Site plan approval can be required for projects permitted as a matter of right in a Zoning District. Most Site Plan Approval processes are administered through Zoning Ordinances/Bylaws as a form of Special Permit with similar procedures. In addition to the general criteria used for issuing a standard Special Permit, (i.e., the protection of public health and welfare) more specific, detailed siting criteria may be employed, for example:

- protection of adjoining premises against seriously detrimental uses by provision for surface water drainage, sound and sight buffers and preservation of views, light and air;
- convenience and safety of vehicular and pedestrian movement within the site and on adjacent streets, the location of driveway openings in relation to traffic, access by emergency vehicles, and to adjacent streets and, when necessary, compliance with other regulations for the handicapped, minors and the elderly;
- adequacy of the arrangement of parking and loading spaces in relation to the proposed use of the premises;
- adequacy of the methods of disposal of sewage, refuse and other wastes resulting from the uses permitted on the site;
- relationship of structures and open spaces to the natural landscape, existing buildings and other community assets in the area and compliance with other requirements of the ordinance/bylaw; and

- mitigation of adverse impacts on the community's resources including the effect on the community's water supply and distribution system, sewage collection and treatment systems, fire protection and streets.

The process for rendering Site Plan Approval decisions is dependent upon whether the use is allowed as a matter of right or by Special Permit only, for example:

- a. Site Plan Approval for Uses Permitted as a Matter of Right - When rendering its decision, the Permit Granting Authority should consider the comments and recommendations of the reviewing boards. It takes into consideration only those factors which reflect upon the Site Plan and design and layout of the proposed project, not the proposed use itself (as the proposed use is already permitted as a matter of right). In rendering its decision, the Permit Granting Authority should only use the specific criteria required for Site Plan Approval.
- b. Site Plan Approval for Uses Allowed by Special Permit - When rendering its decision, the Permit Granting Authority should take the comments and recommendations of the reviewing boards into consideration. It should not only use the standard criteria for issuing Special Permit, but should also apply the more specific criteria required for the Site Plan Approval (relative to the layout and design of the project).

VI. Coordinating Site Plan Review/Approval With The Building Inspector

A number of communities which have adopted site plan review/approval bylaws have had problems coordinating their review procedures with the issuance of Building Permits. For example, Building Inspectors who are under pressure to issue Building Permits are, in some cases, frustrated by extended review procedures.

In order for this procedure to work effectively, both the Building Inspector, the applicant and the community as a whole must understand that, for projects subject to this review, Building Permits will not be issued on short notice. In fact the Building Inspector has thirty days to issue a Building Permit to ensure that it conforms to all applicable Building Codes.

It is important to note that disapproval of a project by a reviewing board (i.e., in the event the Conservation Commission has wetlands concerns) is not necessarily grounds for the Building Inspector to withhold a Building Permit. However, even with a Building Permit, no project may legally commence until all of the required permits and approvals (i.e., Conservation Commission order of conditions) have been obtained.

An example of how this process might work is as follows:

A plan is filed for the construction of a new mini-mall. In their review of the Site Plan the Conservation Commission observes that the project may be encroaching into a known wetland or floodplain area. The Commission would notify the Building Inspector and Applicant, in writing, that "the project appears to encroach into a wetland area and a permit from the Conservation Commission might be necessary. The Applicant should contact the Conservation Commission." Now, the Building Inspector cannot withhold the Building Permit because of a possible encroachment into a wetland or floodplain, but the process has resulted in at least two positive results:

- a. the Applicant has been informed that he/she should contact the Conservation Commission with regard to the project (thus removing the possibility of professed ignorance);

- b. the Commission is aware of the Applicant's proposed project and can be prepared to issue a Violation Notice should work commence without their required permit.

VII. Variations on the Site Plan Review/Approval Theme

There are several interesting alternative methods for implementing Site Plan Review/Approval which have been used successfully in Massachusetts communities. These are outlined below:

a. "Trigger" Mechanism

Using this alternative, the Site Plan Review/Approval process is only required for a use when it reaches or exceeds a certain performance threshold. For example, the more detailed Site Plan Review/Approval process might only be required for those projects which are:

1. residential developments

- over 20 lots
- over 20 acres

2. multi-family developments over 10 units

3. commercial or industrial developments or expansions which:

- exceed 5,000 square feet in gross floor area
- generate a traffic count of over 250 ADT
- require over 10 parking spaces
- exceed a specified discharge into a municipal storm or sanitary sewer system
- consumes over a specified volume of public water
- stores, manufactures, disposes or hazardous materials or wastes.

b. Community/Environmental Impact Reports

In addition to requiring a detailed Site Plan, a bylaw might also require the developer to submit a written analysis (prepared by a qualified professional) of the impact of the proposed project on such aspects as: schools; traffic; water; sanitary sewage disposal; solid waste disposal; municipal services such as public works, fire, police, libraries and recreation; historic sites and districts; wetlands; floodplains; wildlife habitats; surface and groundwater quality; air quality; noise; compatibility with surrounding land uses; and any mitigating measures proposed to reduce impacts. The standards used in calculating these impacts should be clearly and carefully documented and fully referenced. The purpose of this report is to protect the general public against any possible undesirable impacts, and to assist the community in assessing the cumulative impact of the development.

c. Design Review

In many communities there are particular buildings, neighborhoods or districts which have a unique historic architectural or aesthetic character which the community would like to maintain and preserve. A process similar to the Site Plan Review/Approval process can be implemented which review or approves new construction, building expansions, facade alterations, new signs and landscape, streetscape or site improvements in these neighborhoods/districts to encourage or ensure that the

particular attributes of these areas are preserved. This process would not apply to interior alterations or to a change in use of a structure.

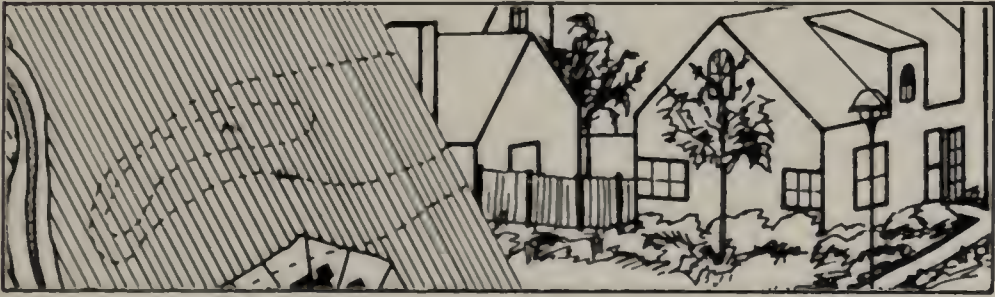
It is important that the Design Review/Approval process have both:

1. a clear public purpose, such as:
 - to encourage the conservation of buildings, groups of buildings, townscapes and landscapes that have aesthetic and/or historical significance;
 - to preserve and protect property values by promoting, preserving and maintaining the beauty and character of a neighborhood/district;
 - to protect and enhance the character and integrity of an existing neighborhood/district by preventing exterior alterations that are incompatible or inharmonious;
 - to protect and enhance the economic health and vitality of a neighborhood/district which is strongly dependent upon the preservation of the visual character of the area.
2. clear and objective criteria upon which the review or approval process is based, such as:
 - compatibility with existing character of neighborhood/ district in terms of:
 - alignment
 - comparable building heights and physical order
 - proportion of architectural elements and style
 - texture and variety of architectural detail
 - sense of enclosure and enframement of views
 - rhythm of mass and voids in building facades
 - shapes of roofs and windows
 - human scale of building and street elements
 - landscape and streetscapes
 - standards for color, texture, materials, paving, light fixtures, signs, lettering.

It is also important that those persons serving on the Design Review/Approval Board have the expertise and ability to render judgements based on particular and specific architectural and design considerations. This is why most Design Review/Approval processes are administered through a local bylaw rather than through a zoning bylaw.

VIII. Conclusion

The primary purpose of the Site Plan Review/Approval process is to end up with an accurate, detailed Site Plan for a project to ensure: a) that adequate information will be submitted to the community to enable a clear evaluation of the project's impacts upon the community and ensure that they will not be detrimental; and b), that all parties involved, including the Applicant, the Community and the abutters, will know exactly what the project will look like when it is completed, and thus avoid any uncertainty or misunderstanding as to the final outcome.



LAND USE MANAGER

EXECUTIVE OFFICE OF COMMUNITIES & DEVELOPMENT



Michael S. Dukakis, Governor
Ann S. Anthony, Secretary

Vol. 5, Edition No. 7
September 1988

LAND USE MANAGER

PLANNING BOARD REGULATIONS CANNOT EXCEED CONSTRUCTION STANDARDS "COMMONLY APPLIED" BY THE COMMUNITY

In March of 1979, Governor Edward King announced a five point strategy designed to create an economic climate which he believed would be more conducive to growth and prosperity for the citizens of the Commonwealth. The five points were tax relief, energy management, manpower training, industrial promotion and regulatory reform. Regulatory reform was chosen as one of the five points because Governor King stated that he felt the regulatory process had evolved into a maze of permits and procedures which was inefficient and costly to both private and public interests.

To address the task of regulatory reform, Governor King established the Commission to Simplify Rules and Regulations. The private sector members of that Commission were Edwin Sidman, Vice President of the Beacon Companies; William Edgerly, President of the State Street Bank and Trust Company; William Leary, Senior Vice President of the Hancock Life Insurance Company; Thomas Flatley, President of the Flatley Company; and Edward Schwartz, Vice President of Digital Equipment Company. The public sector members of that Commission were Governor King's cabinet secretaries.

The Commission was in existence for thirteen months reviewing those aspects of the regulatory process which involved, among other things, the permit granting process for the construction of new housing. On August 18, 1980, the Commission submitted a report to the Governor entitled the Report of the Governor's

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Commission to Simplify Rules and Regulations. In general, the Commission concluded in its report that the Commonwealth should develop legislation and programs which would streamline the local development process, thereby stimulating the creation of jobs and the production of affordable housing. In the area of affordable housing, the report noted that existing municipal rules and regulations were an inhibiting force to the creation of much needed new housing units.

The Commission made several recommendations to limit local government's authority to regulate development which they felt would help to meet the increasing demand for affordable housing in the Commonwealth. One of the recommendations suggested legislation that would limit the authority of a Planning Board to adopt rules and regulations pursuant to the Subdivision Control Law. Specifically, the Commission recommended that road and service specifications in subdivision control regulations could not exceed those specifications commonly applied by a municipality to the laying out and construction of its own publicly financed ways. The rationale for imposing such a limitation was based on the Commission's findings that Planning Boards were adopting excessive subdivision regulations on developments and the consequence of such regulations was to discourage growth or escalate the cost of housing.

Based upon the Commission's report and Governor King's recommendations, in 1981 the Legislature amended Section 81-Q of the Subdivision Control Law by inserting the following proviso:

. . . in no case shall a city or town establish rules or regulations regarding the laying out, construction, alteration, or maintenance of ways within a particular subdivision which exceed the standards and criteria commonly applied by that city or town to the laying out, construction, alteration, or maintenance of its publicly financed ways located in similarly zoned districts within such city or town.
St. 1981, c. 459.

Since cities and towns throughout the Commonwealth rarely construct roadways to serve future residential developments, it was unclear when reading the new proviso as to how one would determine what standards were commonly applied by a municipality. Recently, the Massachusetts Appeals Court took a look at the "commonly applied" standard.

Benjamin and Jean Miles owned a six-acre parcel which they proposed to develop for residential purposes. They submitted a subdivision plan to the Millbury Planning Board which was approved by the Board subject to the following conditions:

1. utility lines (electric, telephone, cable) be underground;
2. a concrete sidewalk be constructed on one side of the street; and
3. sloped granite curbing be installed on both sides of the road and around a cul-de-sac.

The Mileses challenged the conditions imposed by the Planning Board.

MILES V. PLANNING BOARD OF MILLBURY
26 Mass. App. Ct. 317 (1988)

Excerpts:

Armstrong, J. . . .

The highway surveyor of Millbury testified that, in his seventeen years in that position (he had been with the town's highway department since 1943), the town's own construction and up-keep of ways had never involved the installation of underground utilities or of granite curbs or concrete sidewalks. All sidewalks and curbs installed by his department, apparently regardless of zoning district, were of asphalt --- a less durable but cheaper method of construction. Examples of recent new construction were few in number, because the town itself (as opposed to developers of subdivisions) has done little such work since the 1970's. The examples of reconstruction that were offered in evidence were largely discounted by the judge: Grafton Street, because it was a project constructed under G.L. c. 90, financed fifty percent by the Commonwealth and built to Commonwealth specifications, Holman Road and Farnsworth Court because they were not parts of new residential subdivisions; Gagliardi Way, because it was constructed by the Commonwealth rather than the town. Certain other examples were abandoned after objection because construction work was done before the proviso took effect. Other examples were thought irrelevant because the work had been done before the witness's tenure as highway surveyor. The lack of what seemed to be regarded at the trial as perfect examples -- post-1981 new construction by the town, with its own money exclusively, in residential subdivisions -- was permitted

to obscure the fact that developers were being asked to adhere to a standard of construction that the town itself had not followed in its own construction or reconstruction projects for at least the tenure of the highway surveyor (seventeen years) and apparently for some time before that. The most that could be said was that other subdivision developers were being required to and did adhere to the standards being imposed on the Mileses.

There is no suggestion in this case that the conditions put by the board on the Mileses' subdivision approval were either imposed in discriminatory fashion or lacked rational justification. The proviso, however, was intended by the Legislature to limit the authority of a planning board to require more of the developer than the town requires of itself. The standard is not what the town through its boards and officers recognizes as the ideal; rather, it is the standard "commonly applied" by the town in its own construction work. There is nothing in the "commonly applied" standard that makes pre-proviso construction irrelevant, where, as here, there is no evidence that the town imposed the regulations on its own construction. There is nothing in the standard that makes one-hundred percent funding by the town a condition precedent to relevancy. It is true, as the judge emphasized, that the proviso should not be read to constrain the town from upgrading construction standards applicable to ways. The proviso, however, requires that the town must itself be applying the higher standards. Here, it was clear from the testimony of the highway surveyor that the town had not upgraded construction standards applicable to its own work in the five years since the effective date of the proviso. Indeed, in work that was in progress even at the time of trial, the town was continuing to adhere to the lower standards to which the highway surveyor testified.

What has been said applies clearly to the conditions imposed by the board relative to the sidewalk and the curbing. It is less clear that it applies to the condition requiring underground utility lines. . . .

While the question is close, we think the proviso can be read and, in view of the clear intent, should be read to encompass utilities constructed within the ways of subdivisions. In new construction utilities typically follow the routes of ways . . . The installation of utilities is, in practice, an integral part of the construction of ways. Of the several functions of planning boards, the most central is ensuring the subdivisions are not constructed without adequate and safe provision for vehicular access, services (including utilities), water, drainage, and sewerage. . . . The close connection between ways and utilities, coupled with a planning board's preeminent role in determining the standards for adequacy of each, persuades us that legislation restricting a planning board's power with respect to the construction of ways should be read to restrict its powers with respect to the installation of utilities within the ways, if that is, as here, the manifest intent of the Legislature.

. . .

A new judgment must be entered declaring that the three conditions were in excess of the authority of the planning board.

The Miles decision hinged on the fact that enough testimony was presented to show that developers were required to adhere to higher construction standards than what the town followed in its own construction or reconstruction projects. However, the court noted that the "commonly applied" standard enacted by the Legislature in 1981 does not restrict a municipality from upgrading construction standards. If your community has not developed standards, it would be advisable to consider adopting standards which the town will follow for the construction or reconstruction of roadways. The Planning Board should review their subdivision control regulations for consistency with the town standards.

The Town of Millbury has petitioned the Massachusetts Supreme Judicial Court for further review of this case.

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Executive Office of Communities
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Division of Municipal Development
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EXECUTIVE OFFICE OF COMMUNITIES & DEVELOPMENT



Michael S. Dukakis, Governor
Amy S. Anthony, Secretary

Vol. 5, Edition No. 8
October, 1988

ATTORNEY GENERAL APPROVES 5 ACRE ZONING

Earlier this year, the Office of the Attorney General approved two separate bylaws which imposed large lot zoning requirements.

The town of Sudbury adopted a Wayside Inn Historic Preservation Residential Zone on April 27, 1988 at their annual town meeting. The new zoning district established a minimum lot area requirement of 5 acres in the general vicinity of the historic Wayside Inn. Many parcels within the new Wayside Inn Zone were already subject to deed restrictions providing for a minimum lot size of 5 acres. Such deed restrictions were imposed by the Ford Foundation and are due to expire on December 31, 1996.

The Sudbury Planning Board made a presentation at the town meeting supporting the creation of the Wayside Inn Zone. The Planning Board recommended adoption of the Wayside Inn Zone because it believed the new regulations would maintain the integrity of the historic district and would protect against the potential loss of the "historic atmosphere" that was so much a part of the Wayside Inn. The petitioners' report to the town meeting also noted that the Wayside Inn Zone would have the prolonged effect of "preserving the rural and historic character so prized in the Wayside Inn neighborhood."

LAND USE MANAGER

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On April 25, 1988, the town of Chilmark adopted an overlay zoning district entitled "Tea Lane District." The new zoning district was created for the purpose of preserving the bounds, stone walls and the historic character of Tea Lane which was an unimproved road. It was also enacted for the stated purpose of protecting the safety of the public using the road.

The Tea Lane District is an area containing approximately 614 acres which are accessed by the single-lane, dirt road. Tea Lane dates back to 1767, is 1.68 miles long and derived some historic value from an incident during the tea embargo prior to the American Revolution. In order to limit the number of vehicles dependent on Tea Lane and protect the historic character of the lane, the town amended its zoning bylaw to require a minimum lot area of 5 acres in the Tea Lane District.

Any zoning change adopted by town meeting must be submitted to the Attorney General for his approval pursuant to Chapter 40, Section 32, MGL. The Attorney General's power to disapprove a zoning bylaw is limited; he may only disapprove a bylaw if he is of the opinion that the bylaw violates State substantive or procedural law. The Attorney General does not have the authority to disapprove a bylaw because he disagrees with the legislative policy nor can he comment on the wisdom of the zoning bylaw adopted by the town.

The Chilmark and Sudbury bylaws centered on the issue of protecting an historic area of a community by imposing a minimum lot area requirement of 5 acres. In approving the bylaws, the Attorney General sent similar letters to both communities.

The Attorney General's review of the bylaws is interesting because he notes the Massachusetts court cases which have dealt with the issue of large lot zoning. The Attorney General also points out the limit of his review and alludes to some of the issues facing a community in the event of a large lot challenge by a property owner. The following is the Attorney General's response to the town of Chilmark.

THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF THE ATTORNEY GENERAL

JOHN W. McCORMACK STATE OFFICE BUILDING
ONE ASHBURTON PLACE, BOSTON 02108-1698

S-ANNON
GENERAL

July 29, 1988

Carol W. Skydell
Town Clerk
Town Hall
Chilmark, MA 02535

Dear Ms. Skydell:

I enclose the amendments to the general by-laws adopted under articles 16, 17, 31 and 32, and the amendments to the zoning by-laws adopted under articles 35, 37 and 38 of the warrant for the Chilmark Annual Town Meeting held April 25, 1988, with the approval of the Attorney General endorsed thereon, and on the zoning map pertaining to article 35.

Article 35 creates a zoning district denoted as the "Tea Lane District" wherein dimensional regulations for single family homes include a minimum lot size requirement of five acres.

It appears from review of Massachusetts case law that there is no fixed rule about maximum permissible lot size. The cases of Simon v. Needham, 311 Mass. 560 (1942) upholding one acre zoning, Aronson v. Sharon, 346 Mass. 598 (1964) invalidating (as to plaintiff's land only) 100,000 square foot zoning and Wilson v. Sherborn, 3 Mass. App. Ct. 237 (1975) upholding two acre zoning are not dispositive. Other jurisdictions have held zoning requirements of five or more acres to be valid under appropriate circumstances. Southern Burlington County NAACP v. Township of Mount Laurel, 92 N.J. 158 (1983); Kurzius v. Upper Brookville, 51 N.Y. 2d 388 (1980); Queen Anne's County v. Miles, 246 Md. 355 (1967); Honeck v. Cook, 12 Ill. 2d 257 (1957); and Demars v. Zoning Commission, 142 Conn. 580 (1955).

Whether the five acre requirement is valid here, is a matter to be decided by the courts, and if its reasonableness "is fairly debatable, the judgment of the local legislative body must be sustained." Caires v. Building Commissioner of Hingham, 323 Mass. 589, 594-595 (1949). A determination as to whether, on the facts, this by-law has a real or substantial

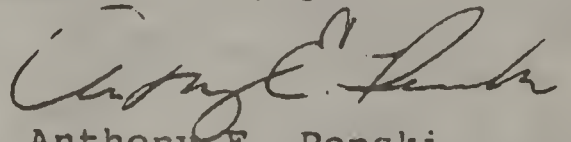
Carol W. Skydell
Town Clerk
Page Two

relation to the public health, safety or welfare, Aronson v. Sharon, 364 Mass. 598 (1964) or whether the by-law reaches the point of deprivation of private property without compensation is beyond the scope of authorized review by the Attorney General. See Concord v. Attorney General, 336 Mass. 17 (1958) and Amherst v. Attorney General, 398 Mass. 793 (1986).

Opponents of this by-law have objected that the boundaries of the "Tea Lane District" as described in the article are ambiguous. Whether there may be some ambiguity as to exactly what land is included within the zone is of course a serious issue, but in reviewing by-laws the Attorney General must be guided by the same principles as the Courts, Amherst v. Attorney General, 398 Mass. 793, 795 (1986), which have stated that "zoning is entitled to a strong presumption of constitutional validity . . . and courts should be wary of declaring zoning fatally indefinite." Jenkins v. Pepperell, 18 Mass. App. Ct. 265, 270 (1984).

In summary, because the Attorney General is unable to say as a matter of substantive law that five acre zoning is unwarranted in the Chilmark "Tea Lane District" area or that the boundary delineation is fatally ambiguous, article 35 is approved.

Very truly yours,



Anthony E. Penski
Assistant Attorney General
617-727-2200 ext.2078

AEP/mfm

In Simon v. Town of Needham, 311 Mass. 560 (1942), the Massachusetts Supreme Court upheld a minimum one acre lot requirement for a single-family dwelling. In reviewing the provisions of the Needham bylaw, the Court noted the amenities which the town could reasonably believe would occur from the one acre requirement, and the advancement of such amenities was, in this case, sufficient justification for the one acre restriction. However, the court warned that in reviewing large lot zoning regulations, the strictly local interests of the town must yield if it appears that they are plainly in conflict with the general interests of the public at large. In such cases, the interests of the municipality would not be allowed to stand in the way.

In the case of Aronson v. Town of Sharon, 346 Mass. 598 (1964), the Massachusetts Supreme Court made good on its earlier warning by striking down a bylaw which required a minimum lot area of 100,000 square feet. The only justification the town put forth for enacting such a large lot requirement was that the community wished to encourage that the land be left in its natural or more rural state to provide living and recreational amenities for its inhabitants and visitors. The court found that such a large lot requirement bore no rational relation to the objectives of zoning even if such a restriction would further the preservation of land in its natural state for recreational and conservation purposes.

In Wilson v. Sherborn, 3 Mass. App. Ct. (1975), the court took a close look at the zoning bylaw of the town of Sherborn which required a two acre (87,120 sq. ft.) minimum lot size. When the Massachusetts Appeals Court decided Sherborn, it acknowledged that Needham and Sharon were the parameters for its decision. The town did not have a public water supply or town sewerage which necessitated wells and on-site septic systems. The Appeals Court upheld the validity of the bylaw as the town was able to show a reasonable relationship between the two acre requirement and the sewage and water conditions of the town.

Chilmark's Tea Lane District has been challenged in the Land Court. The plaintiffs claim, among other things, that the 5 acre lot size bears no rational relationship to a valid zoning purpose and exceeds the Town's zoning authority. The plaintiffs are asking the Land Court to invalidate the Tea Lane bylaw and award damages in an amount which compensates them for the deprivation of the value of their land caused by the Tea Lane District regulations. However, the plaintiffs are also claiming certain procedural deficiencies in the process followed by the Town in adopting the zoning amendment. If they prevail on such issues, the court may not reach the more important issue of large lot zoning and the preservation of historic areas.

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EXECUTIVE OFFICE OF COMMUNITIES & DEVELOPMENT

Michael S. Dukakis, Governor
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Vol. 5, Edition No. 9
November, 1988

SPLIT LOTS

When zoning regulations are imposed, which vary from one district to another, the result is the application of different restrictions to abutting lands. The boundaries of the different zoning districts must be fixed with sufficient certainty so that a property owner will know the types of restrictions that have been imposed upon his property. Any uncertainty as to where the boundary line is located will be resolved in favor of the landowner. See Jenkins v. Town of Pepperell, 18 Mass. App. Ct. 265 (1984). It is common to find zoning district boundary lines that follow topographical features or public improvements such as rivers, highways or streets. However, in some instances, a zoning district or municipal boundary line will divide a lot to leave part of a lot subject to one set of restrictions, and the other part of the lot subject to a different set of restrictions. What zoning regulations will apply?

Through the years, both the Massachusetts Supreme Judicial Court and Appeals Court have looked at the split lot question. In determining what type of activity can occur on a particular portion of a split lot, an important distinction has evolved between an abstract use of land versus an active use of land. In a nutshell, when the use of land in the more restricted zoning district is to supply space for a yard requirement or a similar dimensional requirement, such abstract use of land has been considered consistent with the zoning regulations for the more restricted district.

When the use of land in the more restricted zoning district is for an active use, such as parking or an access roadway, such active use of the land has been found to be prohibited in the more restrictive zone.

The first case dealing with the abstract use versus the active use theory was Brookline v. Co-Ray Realty Co., 326 Mass. 206 (1950). Co-Ray Realty owned a parcel of land of which approximately 15,000 square feet was situated in Boston and 5,000 square feet was in Brookline. The Brookline land was zoned for single-family development and the Boston land was zoned general residence where multi-family use was permitted. Co-Ray Realty proposed to build a 28 unit apartment building on the Boston land and use the Brookline land as a rear yard and service entrance for the apartment building. The Brookline land had to be included in the proposal in order for Co-Ray to meet the rear yard requirements of the Boston zoning regulations. A concrete walk three feet in width and approximately 100 feet in length was to be located on the Brookline land which would give access to the boiler room entrance and service entrance of the apartment building. Any person leaving by either entrance would be on the Brookline land after taking a step or two. The main issue was whether the use of the Brookline land as a service entrance for an apartment building located on the Boston land violated the Brookline zoning bylaw. Brookline did not attack the use of the Brookline land in order to meet the yard requirements of the Boston zoning regulations but rather the active uses to which the yards were to be put. Brookline pointed out that the Brookline land was zoned solely for single-family use and apartment use was not permitted. In deciding in Brookline's favor, the court noted:

Brookline is seeking neither to enforce the Boston zoning regulations nor to deny the use of the Brookline land. It is not objecting to the mere presence of concrete walks on the ground. What the town seeks to enforce is its own zoning by-law and the ban therein against the use of the Brookline land as a locus for carrying on the numerous inevitable service activities accompanying the occupancy of an apartment house.

An access roadway has been considered an active use of land which must conform to the zoning regulations in the district where it is located. This issue first came to light in Harrison v. Building Inspector of Braintree, 350 Mass. 559 (1966).

Textron Industries owned a split lot in which the major portion was located in an industrial zoning district. Textron constructed a factory on the industrial portion of the lot and also constructed an access roadway in order to reach the factory. However, the access roadway passed through a residential zoning district. An abutter sought enforcement action concerning the access roadway and requested that it be relocated. Textron argued that the access over residential land was necessarily implicit in a zoning scheme which completely surrounds an industrial area with residentially zoned land. The court found that since the residential zone did not expressly authorize industrial use, then the (active) use of the land in the residential zone as an access roadway for an industrial use violated the requirements of the residential zone.

Other cases have also looked at access roadways located on split lots. Richardson v. Zoning Board of Appeals of Framingham, 351 Mass. 375 (1966), dealt with an access way for a forty-four unit apartment house. The access roadway was located on land zoned for single family. An apartment house was not listed as a permitted use in a single-family zone. The Zoning Board had determined that the implied intent of the zoning bylaw was to allow access roadways in single-family zones. The court overturned the board's decision reasoning that access roadways should be expressly dealt with in the bylaw. The court also noted that other access was available to the apartment building.

In Building Inspector of Dennis v. Harney, 2 Mass. App. Ct. 584 (1974), the court found that the use of land lying within a residential zone as an access roadway for a commercial use located in an unrestricted zone was not authorized by the bylaw. As was the case in Richardson, other access was available to the property.

As mentioned earlier, sometimes a tract of land will be divided by a municipal boundary. Town of Chelmsford v. Byrne, 6 Mass. App. Ct. 848 (1978), involved access to property located in the city of Lowell and zoned for industry by means of an access road which was located in a residential zone in the town of Chelmsford. The court held that the principle established in the Harrison case that an owner of land in an industrial district may not use land in an adjacent residential zone as access roadways for its industrial use is also controlling when districts zoned for different uses lie in different municipalities. However, the access roadway was the only means of access to the industrial land. The court remanded the case to the Superior Court for a determination as to whether the effect of the Chelmsford bylaw was to bar any access to the land located in Lowell for a lawful use.

Lapenas v. Zoning Board of Appeals of Brockton, 352 Mass. 530 (1967), also shows the concern of the court concerning the availability of access to a lot split by a municipal boundary when it noted that to construe a bylaw so as to bar any access to land for a lawful use would be arbitrary and invalid. In Lapenas, the court faced a situation where a tract of land consisting of a strip from 14-23 feet wide was located in an area of the city of Brockton which was zoned residential, and the remainder of the parcel was located in the town of Abington and zoned for business. The only access to the business portion of the land was through the residentially zoned strip located in Brockton. Lapenas sought a variance under the Brockton ordinance for access to a gasoline station for which the Building Inspector of Abington had issued a permit. The variance was denied by the Zoning Board of Appeals. The court held that the Zoning Board of Appeals' interpretation of the Brockton ordinance was in error and could not be construed as prohibiting access to the land located in Abington. Even though a variance was not considered necessary, the court found that since the land in the residential zone was too narrow to be useable for any permitted purpose, and the commercially zoned land in Abington was without other access, Lapenas was entitled to relief from the literal operation of the Brockton zoning ordinance.

In Tambone v. Board of Appeal of Stoneham, 348 Mass. 359 (1965), the court considered an abstract use of land in a situation where a landowner was using a certain portion of his lot in order to satisfy a minimum dimensional requirement. Tambone owned a split lot which was divided by a single-family and multi-family zone. Tambone proposed to construct an apartment building to be located entirely within the multi-family zone. The apartment building would have been placed on the lot 62 feet from the lot line but only 12 feet from the zoning district boundary line. The zoning bylaw required that all apartment buildings have a minimum side yard of 30 feet. The Zoning Board of Appeals contended that the 30 foot side yard requirement should be measured from the zoning district boundary line and not from the lot line. The term "yard" was not defined in the bylaw but the court noted that, in general, setback requirements in the bylaw referred to distances from setback lines, lot lines, or existing structures rather than from zoning boundaries. Absent a requirement in the zoning bylaw requiring that apartment buildings be constructed at least 30 feet from a single-family zone, the court found that the minimum yard requirements could be measured from the lot line rather than the zoning district boundary line. In Tofias v. Butler 26 Mass. App. Ct. 89 (1988), it was noted that the Tambone court, in explaining the meaning of yard, was saying implicitly that there was nothing wrong with the "abstract" use of the land located in the single-family zone to meet the yard requirements of the bylaw.

The concept of abstract use was significant in Byrne v. Perry, 12 Mass. App. Ct. 883 (1981). Byrne contended that Perry had violated an agreement when he formed a building lot by using land designated in an agreement as a Green Belt. One of the stipulations in the agreement was that the Green Belt was to be "forever left as an open area in its natural state and no structures or buildings . . . shall be erected or placed thereon" Perry constructed a dwelling on the lot in question but only on the unrestricted portion of the lot. The court found that the agreement prohibited construction on or other physical alterations of the Green Belt but did not prohibit "such abstract uses of Green Belt land as incorporating portions of it to meet the dimensional requirements of the zoning by-law."

Tofias v. Butler, supra, also dealt with the abstract use of land in order to meet a dimensional requirement. Tofias owned a split lot in Waltham which was located partly in a residential district and partly in a commercial district. He proposed to construct a commercial structure entirely within the commercially zoned portion of the lot. The zoning ordinance contained a 20% maximum lot coverage provision which was applicable in both the commercial and residential district. Butler, an abutter, argued that only the portion of the lot located in the commercial district could be taken into account when computing the 20% maximum lot coverage. The court disagreed and concluded that the land in the residential zone could be included when calculating lot coverage. As to the future use of the residentially zoned land that was used in determining maximum lot coverage for the commercial building, the court noted the principle that "to the extent required to satisfy the dimensional requirements, such residential land cannot be subsequently built on or counted towards the lot coverage requirement of another structure, but rather must be left as open space"

The Waltham zoning ordinance also contained the following provision relative to split lots.

Where a district boundary line divides a lot in single or joint ownership of record into different districts at the time such line is adopted, the regulations for the less restricted portion of such lot shall extend not more than thirty (30) feet into the more restricted portion, provided that the lot is still owned by the owner of record of such lot when such line was established, and provided further that the lot has frontage in the less restricted district.

The court did not read the above provision as an exclusive rule but rather a grandfathering type provision which was static and narrow in scope. The court noted, however, that the City Council could deal with the split lot issue if they so desired by amending the zoning ordinance. Absent specific regulation, the court will remit to general considerations and pursue case law. As noted in Tofias, when dealing with the application of a dimensional requirement of a local zoning bylaw, the court will make an effort, at "a compromise between the ordinance's apparent recognition of the value of regular zone boundaries and a desire to permit land owners to enjoy the use of their entire properties as single units."

A few months after the Tofias decision, the court, in Moore v. Town of Swampscott, 26 Mass. App. Ct. 1008 (1988), again faced the split lot issue. This case dealt with two adjacent undersized lots which were located in different residential zoning districts. One lot (referred to as Lot 2) was located in a Residence A-1 District. In the A-1 district, a single-family residence was permitted as a matter of right on a lot having a minimum area of 30,000 square feet and 125 feet of frontage. The other lot (referred to as Lot 3B) was located in a Residence A-3 District. In the A-3 district, a single-family or a two-family residence was permitted as a matter of right on a lot having a minimum area of 10,000 square feet and 80 feet of frontage. Lot 2 had an area 8,730 square feet and Lot 3B had an area of approximately 11,500 square feet. Both lots fronted on the same street with Lot 2 having 117 feet of frontage and Lot 3B having only 8 feet of frontage.

Neither lot met the requirements of the zoning district where they were located. However, combined to form a single lot, there was sufficient frontage to meet the minimum frontage requirement of either district and sufficient lot size to comply with the minimum lot area requirement of the A-3 district where single and two family residences were permitted. The Land Court judge ruled that the 117 feet of frontage in the A-1 district could be used to meet the frontage requirement for a single-family residence in the less restrictive A-3 district but not for a two-family residence. On appeal, the Massachusetts Appeals Court decided that the frontage in the A-1 district could be used to satisfy the frontage requirements for a two-family residence which the owners proposed to build on the land located in the A-3 district.

MOORE V. TOWN OF SWAMPSCOTT
26 Mass. App. Ct. 1008 (1988)

Excerpts:

The Land Court judge's decision must be modified in one respect because on June 3, 1988, this court decided Tofias v. Butler, ante 89, 94-97 (1988). That case held that, for a use permitted in a less restricted zoning district, land in a more restricted zone could "supply space for a yard or the like, . . . a use not inconsistent with the requirements of such a (more restrictive) district." It was pointed out (at 95-97), however, that the use of the land in the more restricted district must be merely "abstract," i.e., to satisfy the by-law, rather than "an active, prohibited use of" the land in the more restricted district.

Under the authority of the Tofias case, the owners of this locus could use the land in the more restricted A-1 part of the combined area for an "abstract" or passive use to satisfy the by-law space and frontage requirement for a two-family residence the owners proposed to erect in the less restricted A-3 part of the locus. The Tofias case thus established that structures in an A-3 district were not confined only to those types allowed in the more restricted A-1 district.

The judgment is to be modified to permit the construction of either a one-family or a two-family residence entirely within Lot 3B, when Lot 3B is combined with the passive or abstract use of Lot 2. The case is remanded to the Land Court for further proceedings consistent with this opinion.

An issue which was not directly addressed in the Moore decision was whether a driveway could be constructed for access to a two-family use over land which was zoned strictly for single-family use. Considering the results of the Co-Ray Realty and Harrison decisions, it would appear that construction of a driveway would have to comply with the zoning regulations of the district where it is located. However, if no other practical access exists, the rationale of the court in the Lapenas decision would most likely be applicable.

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Vol. 5, Edition No. 10
December 1988

SELECTED MASSACHUSETTS GENERAL LAWS DEALING WITH LAND USE ISSUES

Through the years we have received numerous inquiries from municipal officials and other interested persons pertaining to land use regulations. Most of the questions have centered on the application of the Zoning Act and the Subdivision Control Law. However, many times we have had to hunt down other statutes which relate to the broad issue of local land use regulation. To save some future frustration, the following is a potpourri of municipal subjects which some day you may have to research. In the notations below, there is a short description of the issue followed by the relevant chapter and section numbers of the Massachusetts General Laws. The following information should not be used as a substitute for your reading of the statute.

SELECTED MASSACHUSETTS GENERAL LAWS

When the last day to take certain actions falls on a Sunday or legal holiday, time period is extended to the next business day. Chapter 4, Section 9.

Rights of abutting property owners to install public utilities in private ways. Chapter 187, Section 5.

Subpoena powers of local boards and public officials. Chapter 233, Section 8.

In certain cases, abutting property owners own to the middle of the right-of-way. Chapter 183, Section 58.

LAND USE MANAGER

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To be consistent with discrimination laws, retirement communities constructed solely for the elderly must be limited to people who are 55 years of age or older and located on a tract of land at least 20 acres in size. Chapter 151B, Section 4.

Procedure for increasing or decreasing the membership of a municipal board. Chapter 41, Section 2.

Procedure for filling a vacancy in a municipal board. Chapter 41, Section 11.

Procedure and limitations for the establishment of user fees. Chapter 44, Section 53E.

Procedure for closing public offices in municipality on Saturdays. In certain cases, Saturday will be treated as a legal holiday when municipal offices are closed. Chapter 41, Section 110A.

Unless otherwise provided by general or special law, a person does not have to be a resident of a community in order to accept an appointment to a public office. Chapter 41, Section 109.

Procedure to be followed when there has been a resignation of a town officer. Chapter 41, Section 109.

The low and moderate income housing law (Snob Zoning). The process of granting a comprehensive permit for low and moderate income housing by a Zoning Board of Appeals. Chapter 40B, Sections 20-23.

Town Hall must be closed on all legal holidays. Chapter 136, Section 12.

Listing of legal holidays. Chapter 4, Section 7 (18).

Siting of refuse treatment and disposal facilities. Chapter 111, Section 150A.

Siting of hazardous waste facilities. Chapter 111, Section 150B.

Procedure for the establishment of an historic district. Chapter 40C.

The acceptance and expenditure of gifts and grants by a municipal officer or department. Chapter 44, Section 53A.

The establishment of building lines no more than 40 feet from the exterior line of a town way. When established, no structures may be constructed between the building line and such way. Chapter 82, Section 37.

The conduct of public officials and employees (the conflict of interest law). Chapter 268A.

Authority to enact a municipal bylaw or ordinance to regulate condominium conversions. Chapter 257, Acts of 1983.

The open meeting law which governs all municipal boards, commissions, committees and sub-committees. Meetings for the purposes of the open meeting law do not include any on-site inspections of any project or program. Chapter 39, Sections 23A-24.

Procedure for the removal of unsafe buildings. Chapter 143, Sections 6-14; Chapter 139, Sections 1-3B.

A restriction on the issuance of a building permit unless there is an available supply of water. Chapter 40, Section 54.

Consent of state before building permit can be issued on an abandoned railroad right-of-way. Chapter 40, Section 54A.

Regulating billboards and other advertising devices within public view. Chapter 93, Section 29-33.

The definition of a public record. Chapter 66, Section 3.

The process of eminent domain. Chapter 79.

The process for the assessment of betterments. Chapter 80

An alternate method of taking property by eminent domain and assessment of betterments. Chapter 80A.

The establishment of a way as a town way. Chapter 82, Sections 21-24.

Approval of town bylaws by the Attorney General. Chapter 40, Section 32.

Town bylaw for regulating the covering of an active or abandoned well. Chapter 40, Section 21 (20).

Town bylaw for regulating the numbering of buildings or or near a way. Chapter 40, Section 21 (10).

Town bylaw (not a zoning bylaw) for regulating earth removal. Chapter 40, Section 21 (17).

Town bylaw authorizing temporary repairs on private ways. Chapter 40, Section 6N.

The publication of compilations of zoning ordinances and bylaws. Chapter 40, Section 32B.

Courts having jurisdiction relative to town bylaw violations. Chapter 218, Section 26.

Non-criminal disposition of town bylaw violations. Chapter 40, Section 210.

Establishing improvement districts. Chapter 40, Section 44.

Removing snow and ice from certain private ways. Chapter 40, Section 6C.

Naming and renaming unaccepted ways. Chapter 85, Section 3B.

Restriction on erection of barbed wire fences. Chapter 86, Section 6.

Spite fences which unnecessarily exceed six feet in height. Chapter 49, Section 21.

Revocation of local licenses and permits for failure to pay taxes. Chapter 40, Section 57.

The protection and planting of public shade trees. Chapter 87.

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LAND USE MANAGER

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Commonwealth of Massachusetts
Executive Office of Communities
and Development
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EXECUTIVE OFFICE OF COMMUNITIES & DEVELOPMENT



Michael S. Dukakis, Governor

Amy S. Anthony, Secretary

Vol. 6, Edition No. 1
January, 1989

OPEN SPACE ZONING

Many communities throughout the Commonwealth have expressed concern about maintaining or protecting their rural character. Large lot zoning is an approach that communities have considered as a way of preserving open space. However, such a zoning tactic is subject to the judicial dicta in Aronson v. Sharon, 346 Mass. 598 (1964), that zoning may not be used as a substitute by a municipality for acquiring land under eminent domain with just compensation to the landowner.

One of the stated purposes for enacting the State Zoning Act was to facilitate the adequate provision of parks, open space and other public improvements. To further this purpose, Chapter 40A, Section 9, MGL, encourages communities to enact cluster development (open space) bylaws. There is little information readily available to municipalities regarding the cluster development concept. The following article, written by Randall Arendt, discusses the central issues surrounding cluster development (open space) zoning. We feel this article will be useful to local officials who are or may consider this land use management tool.

Mr. Arendt is the Associate Director for the Center for Rural Massachusetts which is located at the University of Massachusetts at Amherst. The Center was established by the Legislature in 1984 to conduct research into special problems facing rural communities, and to act as an information clearinghouse serving municipalities and state officials dealing with those issues.

LAND USE MANAGER

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"OPEN SPACE" ZONING: AN EFFECTIVE WAY TO RETAIN RURAL CHARACTER

by Randall Arendt, Associate Director
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Most rural residents probably consider their towns to be fairly well "protected" if they have adopted zoning regulations. Few of them realize that conventional zoning is essentially a blueprint for development, and development alone. Of course, these bylaws usually separate incompatible uses, and they typically establish certain standards (e.g., maximum densities, minimum setbacks, etc.), but they generally do nothing at all to protect open space or to conserve rural character.

"Planned Sprawl"

Conventional zoning assigns a development designation to every acre of land in your town, generally residential, commercial, or industrial. The only lands which are not designated for development under conventional zoning are wetlands and floodplains. Conventional zoning has been accurately described as "planned sprawl", because every square foot of each development parcel is converted to front yards, back yards, streets, sidewalks, or driveways. Period. Nothing is left over to become open space, in this land-consumptive process.

A Better Solution

Local officials and residents who are interested in ensuring that their towns will not ultimately become a seamless web of subdivisions, shopping centers and office or industrial parks now have a practical and effective alternative: open space zoning. This technique can take either of two basic forms, "permissive" or compulsory". About one-third of the towns in Massachusetts (but very few of the rural ones) offer "permissive cluster" as an option for developers, in their bylaws. The idea of "compulsory cluster" has been used by a number of rural towns in southern Maine and in upstate New York for many years, but it has only recently been introduced in Massachusetts (Granby was the first to adopt it, as an effective tool to help preserve farmland).

In order to avoid disturbing the equity held by existing landowners, open space zoning allows the same overall amount of development which is already permitted. However, the outstanding difference is that this technique requires that all new construction be limited to (typically) half the parcel. The remaining open space is permanently protected under a conservation easement, commonly co-signed by the Conservation Commission, and recorded in the County Registry of Deeds.

As "open space zoning" is based upon the technique of "clustering", these two terms are used interchangeably throughout the rest of this article. At this point, it

should also be noted that the cluster concept can be restricted to detached, single-family homes, each on its own down-sized house lot, in communities or in specific zoning districts where this is politically desirable. In other words, cluster housing is by no means limited to townhouses, apartments, or condominiums. Neither is it limited to any particular income group or family type. In fact, the classic New England village settlement pattern is a superb example of clustered single-family homes, with the central green constituting the permanently preserved open space.

Cluster Design

Although the basic concept of clustering is fairly simple (and fairly old), it is viewed as a "new" form of development by those who haven't recognized its basic similarity with traditional townscapes. Because it is quite different from the conventional, standardized subdivision pattern with which most of us are very familiar, it has raised concerns among some rural residents. Interestingly, the conventional suburban model, commonplace in many metropolitanizing towns, is actually an alien pattern in the otherwise traditional New England landscape. It really looks "at home" only in places such as central New Jersey, where, after 70 years of implementing conventional zoning, it has become the predominant building pattern.

The purpose of this brief article is to explain the major differences between conventional and clustered (open space) development, and to address the principal concerns typically expressed at local meetings where the open space planning concept has been discussed.

Ultimately, of course, the question of this technique's appropriateness in rural or suburbanizing municipalities will be answered by its residents and their official representatives, taking action to amend local zoning bylaws on a town-by-town basis. The following paragraphs have been prepared to provide pertinent information to town officials and residents, so that these local decision-making processes may be conducted on a more informed basis.

The Open Space (Cluster) Concept, in Practice

The basic principle of cluster development is to group new homes onto part of the development parcel, so that the remainder can be preserved as unbuilt open space. The degree to which this accomplishes a significant saving of land, while providing an attractive and comfortable living environment, depends largely on the quality of the zoning regulations and upon the expertise of the development designer (preferably someone experienced in landscape architecture).

Open Space: What Size and Shape?

For example, unless local regulations require the resultant open space to be at least a certain size with specific minimum dimensions, the "open space" can end up being a long narrow fringe abutting rear lot lines and the parcel's outer perimeter. This can be easily avoided by clarifying, in the bylaw, that lots and roads shall not cover more than, say, 40% of the parcel, and that at least half of this open space must be shaped so as to be usable for active recreation or agriculture, for example.

Counting Only Truly Usable Land

In order to avoid another possible problem, many towns also specify that housing density be based upon "net buildable area", which typically prevents all (or a certain percentage of) unbuildable land (such as wetlands or extremely steep slopes) from being counted when calculating the number of homes that may be permitted. Otherwise, the cluster approach could be used to propose a greater number of dwellings than would be buildable under conventional subdivision methods. Some towns address this issue by requiring the developer to demonstrate that his cluster plan would not produce a greater number of new homes than would be possible with a standard layout. (This often means that two conceptual plans are submitted, for comparison.)

Will it Harmonize with its Surroundings?

Another concern I have often heard is that cluster housing will not blend in with a town's rural character. It is true that some cluster developments done in the past have failed to harmonize with their surroundings. Recognizing this potential problem, a few towns are now requiring that new cluster plans consist of only detached, single-family homes, each set on its own, down-sized individual lot, roughly resembling a traditional village pattern. This also ensures that every family will have its own separate yardspace, in addition to the larger "open space" which the cluster approach creates.

Architectural Design Issues

In order not to completely prohibit other forms of housing some towns have adopted special permit procedures which enable their Planning Boards to approve attached units, under exceptional circumstances, when they are carefully designed to reflect traditional architectural values. Typically, such regulations set an upper limit on the number of dwellings per building (e.g., four), and contain standards relating to features such as roof pitch, siding material, and roofline breaks, thus giving developers an incentive to hire architects sensitive to traditional building forms that will blend in with the town's character.

"Open Space" Maintenance

Another issue which concerns people is the maintenance of the open space that is created by clustering. If the open space is recreational (playing fields, jogging trails, tennis courts, etc.), upkeep is typically handled by a homeowners' association, to which everyone is contractually obligated to contribute when they purchase their home. (At Echo Hill in Amherst, MA, for example, homebuyers sign a legally binding agreement which enables the homeowners' association to collect any unpaid dues, with accrued interest, from the party involved at the time he eventually re-sells the house. Unpaid dues cloud the title and effectively prevent re-sales.) If the open space is agricultural, there are several options.

The agricultural open space could be sold "in fee" to the homeowners' association, which could in turn lease it to local farmers. Alternatively, the original farmer could retain ownership of it and sell only his "development rights". I favor the latter option, even if the farmer is planning to retire, because he could still sell the field to a younger farmer in the neighborhood at an affordable price reflecting the land's agricultural value (not its potential building-lot value), thus strengthening the local farming economy. This is essentially a private-sector version of the state's "APR" program, which is limited in its funds.

"Locking In" the Open Space

This leads into another commonly-felt concern, involving the prevention of future development on the open space. Although cluster bylaws typically prohibit further subdivision of the parcel, an added safeguard is to require that the local Conservation Commission be a signatory party to a conservation easement permanently restricting development on the open space. Alternatively, a local, regional or state-wide land trust could also be a co-signer and enforcer.

Buffering Farm Operations

In order to reduce potential conflicts between new residents and agricultural practices, towns are beginning to require that cluster lots be separated from the protected farmland by a "buffer" strip, typically 75 to 100 feet wide. Where the development can be so designed, existing woodland should be used. When this is not possible, towns can require new buffer areas to be thickly planted with a variety of rapidly growing native trees and shrubs (white pine, birch, poplar, American viburnum, honeysuckle, wild rose, etc.). A similar requirement should also be placed on conventional subdivisions when they abut working fields, but this is rarely done.

Adjacent Property Values

The issue of "impact upon surrounding property values" has often been raised. Along any part of the parcel perimeter where down-sized lots would adjoin standard-sized lots, towns can require buffer strips, similar to the ones described above. Along other edges, this may not be desirable or logical, as lots which border permanently protected open space almost always enjoy enhanced property values. (This enhancement is also true for cluster lots within the development.)

Private Streets, Different Standards?

When cluster developments are designed with privately-maintained road systems, Planning Boards are often asked to reduce their normal street construction standards. This has, in the past, sometimes created sub-standard conditions, and is a practice which towns would be well-advised to resist. If subdivision street construction standards are excessive (as they often are, particularly in width of pavement), they should be revised for all types of new development, so that rural character is not further compromised by new streets which look like they were engineered for metropolitan suburbs. It is useful to note here that most town roads, outside new subdivisions, have an 18-foot wide paved surface, much more in scale with New England than the 22' to 30' paved travel surfaces commonly required by "modern" subdivision regulations.

Sewerage and Septic Systems

Because of the shorter road system needed to serve village-sized lots in a cluster development (as contrasted with large lots in conventional subdivisions), substantial savings are possible with respect to the construction of roads, sewers,

and water lines. Where sewer service is unavailable, however, people have expressed concerns about siting septic systems on the smaller cluster lots. Recognizing this factor, towns are requiring that such houselots be located on the section of the parcel where soils are most favorable for leaching fields. The flexibility of cluster design allows this to happen; in a conventional subdivision, septic systems are located wherever the soils manage to pass minimum health requirements, even on marginal soils whose long-term suitability is questionable. In addition, it should be noted that septic systems can be located beyond one's lot lines, on an easement within the protected open space.

Why Require Open Space (Cluster) Design?

Perhaps the most controversial issue surrounding the cluster concept is the suggestion that this open space approach could be made "mandatory", in the bylaws. The rationale behind this suggestion is that there are certain types of irreplaceable natural resources which are extremely important to protect. Among these may be listed aquifers, riverfront land, fields and pastures. In addition, clustering provides the flexibility in layout so that a developer can avoid impacting important wildlife habitat areas, such as deeryards, or scenic features of the rural landscape, such as large rock formations, hillcrests, and mature tree-stands. It is a local decision whether to require the cluster approach when development is proposed on any or all of these resource lands.

Legal Points

Towns considering "compulsory open space zoning" are strongly encouraged to work closely with legal counsel, to ensure that their wording will not be inconsistent with statutory or case law. In particular, two points should be remembered. First, this technique should be used to protect identifiable and important resource lands (and not be a "blanket" over all rural properties). Second, it must leave an "escape valve" for a limited amount of conventional (non-cluster) development (say, 2 or 3 lots in any 5-year period), so that the applicant has some other options that do not require him to go through the Special Permit process. A copy of Granby's compulsory open space bylaw (for farmland protection) is included in the "Growth Management Workbook, prepared by the Pioneer Valley Planning Commission, under a grant from EOCD. Another example may be found in the award-winning rural design manual "Dealing with Change in the Connecticut River Valley", prepared by the Center for Rural Massachusetts, with a grant from DEM.

Degrees of "Mandating" Open Space

Readers should bear in mind that it is possible to limit the cluster requirement to certain zoning districts. It is also possible to authorize the Planning Board to require it only when the developer's conventional plan would destroy or remove more than a specified percentage of certain listed resources, leaving determination on a case-by-case basis. Proponents of "compulsory open space" zoning (in any of its various forms) argue that any other approach pays only lip service to resource protection, because any developer would remain free to ignore cluster "recommendations" from town officials. They argue that protection of these resources is far too important to be left to the whim of a speculative developer, who might prefer to build a conventional suburban subdivision because that is what he happens to be most

familiar with. In my view, towns which choose not to exercise their potential local regulatory authority to require open space development design are essentially in a game of chance, in which they simply hope that developers will voluntarily opt to follow the open space approach. This method of "planning" does not put the true control of its own destiny, and has not resulted in significant open space preservation in the communities which have simply "permitted" cluster over the past 20 years. When this important choice is left to developers, most opt for standard, land-consumptive, suburban subdivision because they can do that "by right", avoiding the Special Permit process with its additional rules and uncertain outcome. I would argue that towns which wish to become "space communities" in the future need to require significant open space set-asides in every new subdivision. Since the concept of "compulsory open space zoning" was introduced in Massachusetts last year, the towns of Granby, Warwick, and Amherst have adopted it, and it is currently under active consideration by the towns of Hadley, West Stockbridge, Lanesboro, New Ashford, Wendell, and Heath.

Cluster Design and Rural Character

Last but certainly not least is the issue of whether cluster development is "appropriate" in a rural setting. Without proper regulatory safeguards and design criteria, it is clear that clustering can produce results which would be incompatible with its surroundings. However, many rural residents are beginning to recognize the advantages that well-designed cluster development can offer. It is the only development approach which sets aside land for permanent open space.

The conventional approach covers the entire development parcel with houselots and subdivision streets. Towns which have had a lot of experience with this type of development ultimately realize that, as one parcel after another is eventually developed, their formerly rural landscape evolves into a network of "wall-to-wall" subdivisions.

Here in New England, we have much to be thankful for. Had the Pilgrims not run out of ink or parchment after finishing the Mayflower Compact, and had they had the time and "foresight" to draft a modern (1989) zoning and subdivision rulebook, all of our attractive New England towns would have a thoroughly suburban character. It is a sobering thought, but New England would be virtually indistinguishable from most parts of New Jersey and Long Island, had we experienced 368 years of conventional suburban development along the lines which many towns are requiring today in their bylaws and regulations. Those areas epitomize "planned sprawl".

As we re-shape the traditional New England landscape with our standardized, suburban-style municipal regulations, we must ask ourselves whether continuous coverage by large-lot subdivisions will be more rural than a mixture of village-sized cluster lots surrounded by permanently protected farm fields and woodland. This is a question for residents and officials in each town to decide. As long as everyone is clear about the ultimate consequences of the various development types which are available to them, these decisions can be made on an informed basis. It is the role of rural planners, such as myself, to explain the choices that exist, and to help people foresee the probable long-term results of each choice. The decision is ultimately theirs.



CONVENTIONAL ZONING PRODUCES A PATTERN OF "PLANNED SPRAWL"

When zoning has been fully implemented, towns discover (too late) that all of its open space has been converted to an assemblage of subdivisions, shopping centers, and office parks. The failure of conventional two-acre zoning to protect open space and rural character is illustrated above, where the only undeveloped land in this Connecticut town lies within the Hunt Club and the Country Club. A similarly total transformation from rural to suburban is shown below, in a once-lovely area of Dutchess County, near Poughkeepsie.



Fig. 1 TYPICAL RURAL HIGHWAY PRIOR TO SUBURBAN DEVELOPMENT

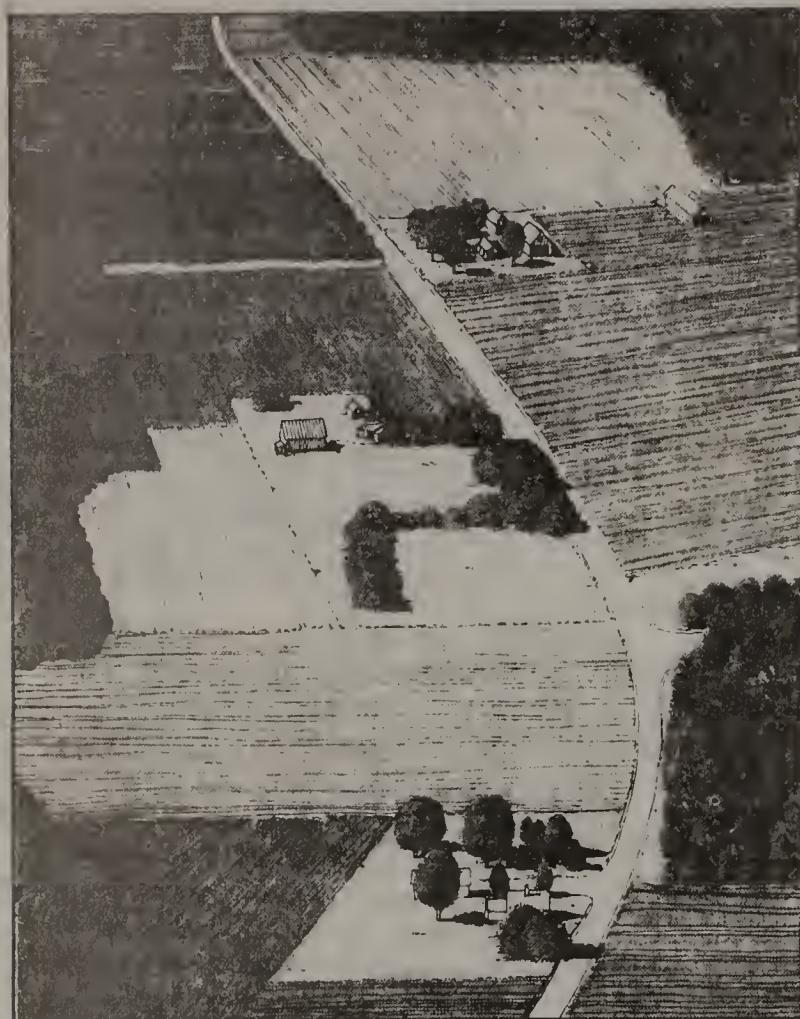


Figure 1 shows a typical rural highway crossing through a mixture of open fields and woodlands. In this "pre-development" scene, three farmsteads dot the rural landscape. Together with the surrounding cropland, these buildings define the agricultural character of this part of the community.

In Figure 2, the town's zoning (its "blueprint for development") has dictated a large-lot suburban approach to residential construction. Land fronting on the state highway was developed exactly as called for in the zoning ordinance, resulting in the creation of a linear commercial "strip." No one realized that the town's "protective" zoning, which segregated commercial and residential uses, and which required one-acre house lots, would transform this area into a characterless sprawl.

Figure 3 illustrates a viable alternative to the "strip." Retail and office development are concentrated around the intersection, where the commercial zone is located (and to which it is limited). The town's "maximum setback" concept requires that these buildings maintain a traditional close relationship with the road. Parking is nicely screened from view; shops face onto the parking area but also have additional display windows facing the road. Elsewhere in the neighborhood, most of the open fields have been preserved by grouping new homes within two tightly-knit hamlets. Overall, the same development density is accommodated. In this plan, public water and sewer are available, and the "forever open" status of the adjacent farmland boosts surrounding property values while retaining rural views.

Fig. 2 DEVELOPED ACCORDING TO CONVENTIONAL SUBURBAN ZONING



Fig. 3 DEVELOPED ACCORDING TO ALTERNATIVE RURAL DESIGN PRINCIPLES

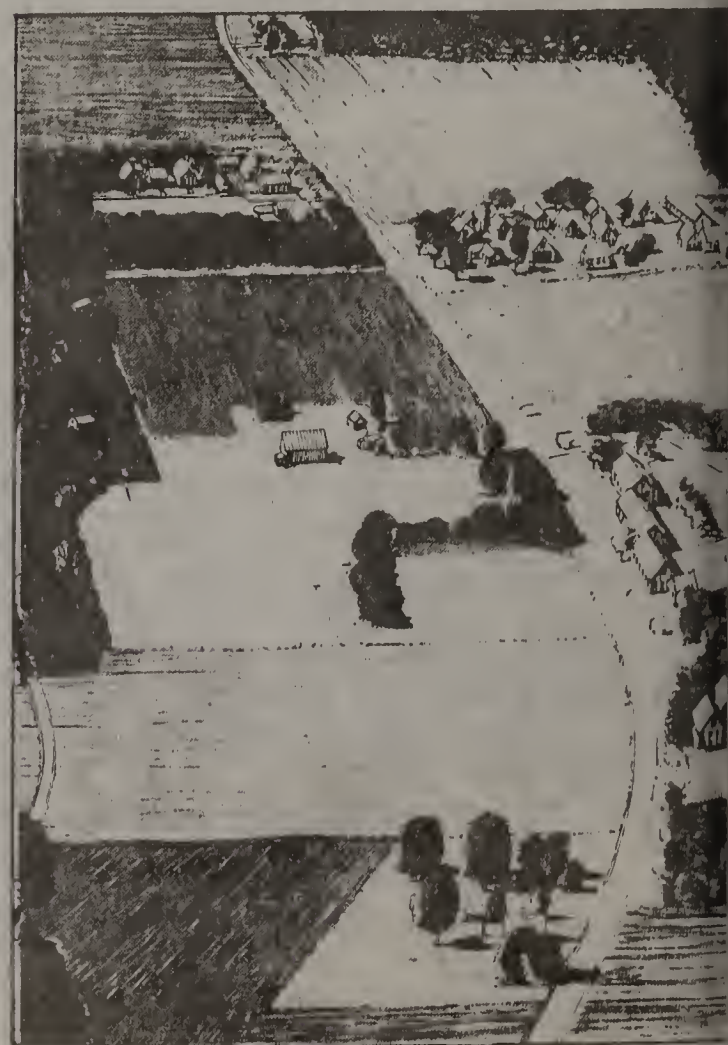


Fig. 4 TRADITIONAL RURAL VILLAGE PRIOR TO SUBURBAN DEVELOPMENT

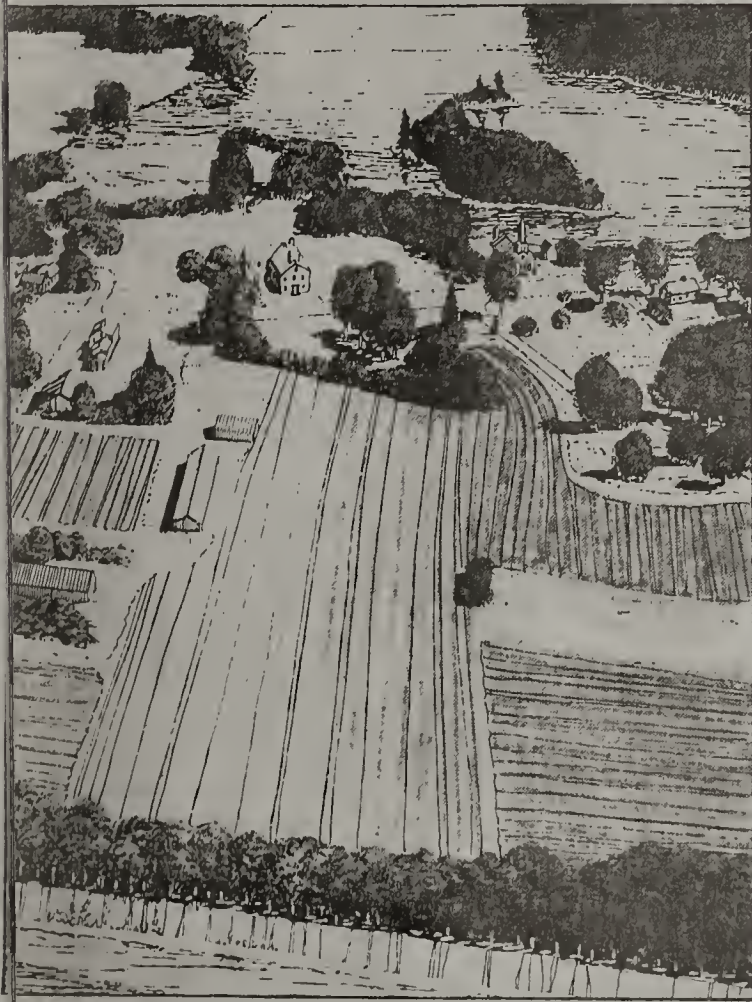


Fig. 5 DEVELOPED ACCORDING TO CONVENTIONAL SUBURBAN ZONING



Fig. 6 DEVELOPED ACCORDING TO TRADITIONAL VILLAGE DESIGN PRINCIPLES

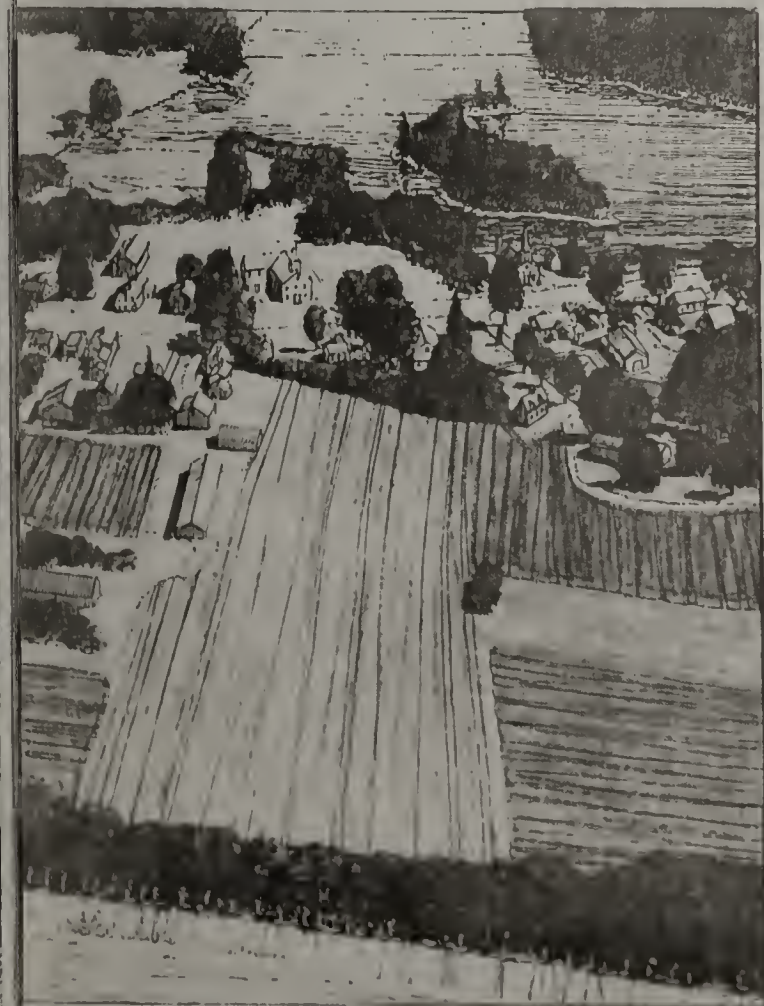


Figure 4 illustrates a typical pre-development situation, in which a rural village is organically grouped around a small nucleus of buildings including a farmstead, a church, and the town hall. The rural character is defined by large open fields providing a feeling of spaciousness and attractive long views down to the river.

Figure 5 shows the future of the same village as it would ultimately appear under the standard design requirements built into the zoning and subdivision regulations existing in nearly every town.

Few people realize that their local zoning mandates a suburban approach, in which all open space (except wetlands and floodplains) is divided into house lots. This drawing shows typical one-acre lots.

Figure 6 shows a more creative approach, reinforcing the traditional tightly-knit character of small towns and villages through an "infill" strategy that places units close together on vacant land in the village center. Even more important, the agricultural open space which gives the rural landscape its special beauty is permanently protected. This is accomplished within the same overall density as shown in Figure 5: for every half-acre house lot in the village infill, there is half an acre of farmland in the field. In both situations the developer buys one acre of land; the difference is in the way in which the homes are grouped: village versus suburb.

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